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GENERAL (incl. Statistics)

2409. Aroian, L. A. Some methods for the evaluation of a sum. *J. Amer. statist. Ass.*, 1944, 39, 511-515.—The author presents the theoretical basis for the solution of the frequently occurring problem of finding the sum of a large number of variates. The procedure of systematic sampling is used, and the author presents the assumptions and uses of the technique.—T. G. Andrews (Chicago).

2410. Baitsell, G. A. [Ed.] *Science in progress; fourth series*. New Haven, Conn.: Yale University Press, 1945. Pp. xvi + 331. \$3.00.—See 19: 2448, 2459, 2486, 2718.

2411. Bawden, H. H. Primary and secondary behavior. *Psychol. Rev.*, 1945, 52, 150-161.—Primary behavior, which we share with lower animals, is largely tropic, reflex, instinctive, and emotional. Secondary behavior, characteristic of man, involves manipulative function of the finer musculatures. "The difference between primary and secondary behavior is the difference between total and discriminative responses." Animals meet a situation by total response of primary behavior. This total response of primary behavior is still present in human equipment in what is called the emotional seizure. The problem of human beings is to set up such an interaction between our animal endowment of primary behavior and "our human achievement of secondary behavior that our animal functions may become culturally significant and beautiful."—M. A. Tinker (Minnesota).

2412. Boring, E. G. [Ed.] *Psychology for the Armed Services*. Washington, D. C.: Infantry Journal, 1945. Pp. xvii + 533. \$3.00.—The present volume presents at the college level essentially the same array of topics covered in *Psychology for the Fighting Man* (see 17: 3639). These topics are: the use of psychology in war; the eye as a military instrument; visual adaptation and night vision; color and camouflage; the ear as a military instrument; smell in war; equilibrium and bodily orientation; topographical orientation; efficiency and fatigue; physical conditions of efficiency; selection of men; learning; Army teaching; motivation and morale; personal adjustment; emotion—fear and anger; sex; leadership; rumor; panic and mobs; assessing opinion and discovering facts; propaganda and psychological warfare; and differences among the peoples of the world.—W. S. Hunter (Brown).

2413. Brierley, M. Notes on metapsychology as process theory. *Int. J. Psycho-Anal.*, 1944, 25, 97-107.—A detailed discussion is given of metapsychology as a process theory of the mind which assumes that mental processes constitute the hypothetical units of psychic life. Hence, topographical description is primarily relevant to brain anatomy

and physiology. Dynamic and economic elements relate primarily to the psychological aspects of mental processes. The conclusion is offered: "Metapsychology is general theory, but it is psychology; it is derived by inference from the detailed study of living persons. It is, however, no longer subjective but objective psychology. Process-thinking is a kind of thinking familiar to biologists, physiologists and experimental psychologists and, because it is objective and impersonal, it may prove more adaptable than subjective theory to experimental testing." 18-item bibliography.—M. H. Erickson (Eloise Hospital).

2414. Brozek, J., & Keys, A. Interdisciplinary research on human biology with special reference to behavior studies. *Amer. Scientist*, 1945, 33, 103-111.—Many major problems of human behavior require the co-operation of research workers from different fields for adequate study. Investigations of work, of growth and aging, and of nutrition are used to illustrate such efforts, and the role of psychologists therein is described.—D. K. Spelt (Mary Baldwin).

2415. Carmichael, E. B., McBurney, R., & Cason, L. R. A trap with holder for handling vicious laboratory animals such as wild rats. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 12-13.—Abstract.

2416. Chein, I. The logic of prediction: some observations on Dr. Sarbin's exposition. *Psychol. Rev.*, 1945, 52, 175-179.—In discussing Dr. Sarbin's earlier paper which favors the statistical over the clinical point of view (see 19: 30), the author attempts to clarify the clinical point of view. It is held that the clinician is not primarily concerned with prediction but with control. Sarbin is criticized on several points: he misses the point that a prediction of a single case can be verified, his illustrations demonstrate that he does not comprehend the clinical approach, he fails to understand the clinician's situation, etc. An analysis of each critical point is made. Greater co-operation between the clinical and the theoretical psychologist is not likely without greater mutual understanding.—M. A. Tinker (Minnesota).

2417. Craik, K. J. W. The present position of psychological research in Britain. *Brit. med. Bull.*, 1945, 3, 24-26.

2418. Dunlap, K. The contribution of psychology. In *Various, Science in the university; by members of the faculties of the University of California*. Berkeley, Calif.: University of California Press, 1944. Pp. 305-318.—This chapter gives a popular sketch of American psychology, with emphasis on the contributions of Stratton, Franz, James, and Fernald.—H. Schlosberg (Brown).

2419. Hull, C. L. The discrimination of stimulus configurations and the hypothesis of afferent neural interaction. *Psychol. Rev.*, 1945, 52, 133-142.—The role of stimulus configurations in adaptive behavior

is an aspect of behavior dynamics which has been and still is greatly neglected. An example of stimulus-configurational discrimination is cited. After presenting a conventional but false analysis of configurational-discrimination learning for the data, the author presents his more adequate analysis of the configurational-discrimination learning. This is tied in with quantitative aspects of afferent neural interaction. Before the presented principle can be of much scientific use, the quantitative molar laws according to which it occurs under various stimulus-configurational conditions must be determined experimentally, and we must know more about the quantitative laws of afferent neural interaction.—*M. A. Tinker* (Minnesota).

2420. J[ones], E. Owen Berkeley Hill; 1879-1944. Obituary. *Int. J. Psycho-Anal.*, 1944, 25, 177.—Appreciative tribute is paid to Hill for his interest in psychoanalysis, his accomplishments as the Superintendent of the European Asylum in India, and his scientific contributions to Indian sociological problems.—*M. H. Erickson* (Eloise Hospital).

2421. Levy, H., & Preidel, E. E. *Elementary statistics*. New York: Ronald Press, 1945. Pp. vii + 184. \$2.25.—This text is planned as a guide to students of mathematics, physics, and engineering. The major topics treated in the 15 chapters are: types of measurement; frequency; "best" value for a set of measurements; dispersion; special types of frequency; the accuracy of the mean; related measurements (regression); correlation; the measure of trends; elementary ideas in probability; the meaning of the correlation coefficient; some mathematical points; Gauss's Law of Error (2 chapters); elements of quality control; and the limitations of normal statistical analysis. Exercises based on the principles in each chapter are included and a section of answers is presented as an appendix. The mathematical derivations of the formulas are relatively complete but do not involve higher mathematics.—*T. G. Andrews* (Chicago).

2422. Loeb, L. *The biological basis of individuality*. Springfield, Ill.: C. C. Thomas, 1945. Pp. xiii + 711. \$10.50.—In this large survey the author discusses the problem of individuality and personality in terms of the biological factors and criteria that determine the bases of differentiation. A discussion is given of the work on tissue transplantation in higher organisms, which is taken as offering the most delicate tests of individual differentials. The phylogenetic and ontogenetic development of individuality is surveyed beginning with protozoa, and the problem of differentials among low forms is treated. Tumors as organismal differentials and the role of these differentials in the interaction of organs and tissues in the body are discussed. The immune processes, the relations between species evolution and differentials, and the significance of individual differentials in the psychical-social field are the subjects of the last three parts of the book. A 37-page bibliography and a full index complete the book.—*T. G. Andrews* (Chicago).

2423. London, I. D. *Psychology and Heisenberg's principle of indeterminacy*. *Psychol. Rev.*, 1945, 52, 162-168.—After pointing out that Heisen-

berg's principle is inescapable and necessarily appropriate to the phenomena of quantum physics, the author notes that there is no analogous situation in psychology which renders necessary the invocation of the indeterminacy principle. "The principle when applied to problems outside its explicit domain of applicability can be only falsely illuminating and irrelevant."—*M. A. Tinker* (Minnesota).

2424. Lurie, W. A. John Madison Fletcher: 1873-1944. *Psychol. Rev.*, 1945, 52, 180-181.—Obituary and appreciation.—*M. A. Tinker* (Minnesota).

2425. Menninger, K. A. *The human mind*. (3rd ed.) New York: Knopf, 1945. Pp. xvii + 517 + xiv. \$5.00.—This general introduction to modern psychiatry is aimed to reach both the professional worker and the intelligent layman. The 6 chapters dealing with principles, personalities, symptoms, motives, treatments, and applications have been expanded to include new material dealing with shock and surgical therapy and psychotherapy. The contributions of psychiatry to the wartime and postwar world are discussed, while military psychiatry per se is purposely excluded. The importance of the integration of psychiatry with general medicine, psychology, and psychiatric social work is emphasized. The numerous illustrative case histories are retained, and 28 pages of references have been added. (See 4: 2657; 12: 611.)—*C. E. Henry* (U. S. Naval Reserve).

2426. Montague, W. P. *The first mystery of consciousness*. *J. Phil.*, 1945, 42, 309-314.—The relation of being conscious or aware seems to be utterly unique but is affiliated by the author to the relation of causality. It is said, in short, to be the inverse of the latter relation. Unless repetitions of a sequence, such as water quenching fire, are incredible runs of luck, any event must have been potentially present in the events that produced it. In other words, there must be a real causal power by which an event A produces a specific event B. If this be the case, *being aware of* may now be viewed as the relation of B to A. It is the intrinsic reference of an effect to its cause. There are three corollaries: (1) "Realism" is axiomatically or self-evidently true. (2) Both perceptual and conceptual error are always possible and can be avoided by a sufficiently wide acquaintance with the effects. (3) The theory proposed is independent of any theory (materialistic, spiritualistic, etc.) of the relation of consciousness to the brain.—*R. H. Dotterer* (Pennsylvania State College).

2427. Mourad, Y., & Ziwer, M. [Eds.] *Egyptian journal of psychology*; issued by the Society of Integrative Psychology. Vol. 1, No. 1, June 1945. June, October, February. Pt. 50; 12s. 6d.

2428. Niessen, A. M. *On the summation of certain progressions useful in time series analysis*. *J. Amer. statist. Ass.*, 1945, 40, 98-100.—*T. G. Andrews* (Chicago).

2429. Nordin, J. A. *Determining sample size*. *J. Amer. statist. Ass.*, 1944, 39, 497-506.—Indicating the need of a theoretical background for determining the optimum size of the sample when cost is considered, the author derives estimating formulas for

this use and presents a computed example.—T. G. Andrews (Chicago).

2430. Pierce, J. A. On the summation of progressions useful in time series analysis. *J. Amer. statist. Ass.*, 1944, 39, 387-389.—T. G. Andrews (Chicago).

2431. Rapoport, A. The criterion of predictability. *Etc. Rev. gen. Semant.*, 1945, 2, 129-151.—Language functions as a method for resolving conflicts: verbal conflicts of incompatible behavior, verbal conflicts of compatible behavior, and verbal conflicts about the external world. "The highest civilization is a state of affairs in which the maximum number of conflicts between man and man and between man and nature are resolved by verbalizing these conflicts into a series of true propositions, which serve as a guide for behavior." Our problem then is "a steady and infinite approach to reality measured quantitatively where more knowledge means more predictability with less assumptions." Within this system "a proposition will be defined 'true' (a quantitative term), 'false,' or 'meaningless' according to whether it can be stated as a set of predictions which are realized (the extent of realization is the measure of truth), or a set of predictions which are not realized, or whether it cannot be stated as a set of predictions." The pseudo problem of freedom of the will can be stated as follows: "when the observer and the observed are different, greater predictability means less freedom; when they are 'identical,' greater predictability means greater freedom."—R. B. Ammons (Iowa).

2432. Rauth, J. E., & Sheehy, M. M. Principles of psychology for the basic course in nursing. Milwaukee: Bruce, 1945. Pp. xvi + 200. \$2.00.—G. S. Speer (Central YMCA College).

2433. Sarraide, A. M. Importancia de la precisión en el cálculo de correlaciones para la prevención de los accidentes del trabajo. (Importance of precision in determining correlations in preventing work accidents.) *Psicotecnia*, 1943, 4, 171-186.—In validating tests and in analyzing complex data such as those on industrial accidents, the most exact statistical technique should be employed, rather than any convenient empirical correlation measure. An exposition is given, with formulas, of the least squares method, finding the standard error and *r* (Sheppard, Pearson, and Spearman), and using rank ordering and tetrad differences.—H. D. Spoerl (Jeffersonville, Vt.).

2434. Shapley, H. A design for fighting. *Amer. Scientist*, 1945, 33, 84-102.—The author decries our failure to attack the enduring enemies of mankind as assiduously as we conduct military campaigns. As typical of problems requiring long-continued and widespread efforts, he cites illiteracy, premature senility, and the threat of extreme cultural uniformity as a consequence of the nature of Western civilization. He proposes "a methodical and elaborate warfare against the Tyranny of the Unknown" as properly "the concern of the businessman, the labor union, the fruitgrower, and the farmer." Such a campaign would involve (1) convincing the average citizen of the need for the crusade, (2) convincing local and national governments of the merit of the cause, (3) teaching schools and colleges the

importance of turning out critical and creative thinkers, and (4) publishing detailed listings, with bibliographies, of the problems in each field which need investigation.—D. K. Spelt (Mary Baldwin).

2435. Sheldon, W. H. Critique of naturalism. *J. Phil.*, 1945, 42, 253-270.—In spite of their disclaimers, contemporary "naturalists" are materialists, at least in the sense that they regard all states or events we call mental or spiritual as wholly dependent upon the states and processes we call physical. The naturalists may believe in "levels," but they regard the behavior of the higher level as predictable from a knowledge of the lower. When Dewey and others tell us that naturalism is essentially the acceptance of the method of the sciences, we must ask, "What method?" and "Which sciences?" In particular the question arises, "Is introspective psychology a science, and is introspection a valid part of scientific method?" It does not seem to have the objectivity, publicity, etc., which our naturalists demand. The author concludes that the naturalists' method is applicable only to the physical sciences, and thus by prior assumption it excludes the recognition of any nonphysical reality.—R. H. Dotterer (Pennsylvania State College).

2436. Simon, H. A. Statistical tests as a basis for "yes-no" choices. *J. Amer. statist. Ass.*, 1945, 40, 80-84.—The author discusses the problem of statistically insignificant results when comparing two experimental treatments and indicates that there are four possibilities for translating such results into a rule of decision: (1) It does not matter which treatment is to be used. (2) Take the least expensive because the other is not significantly better. (3) Take the apparently better one even though its superiority is in doubt. (4) No recommendation can be made without further data and a new test. Although the *t*-test leads to the fourth conclusion above, the author indicates that by using a modification of the Neyman-Pearson theory one is led to the third choice.—T. G. Andrews (Chicago).

2437. Skinner, C. E. [Ed.] Elementary educational psychology. New York: Prentice-Hall, 1945. Pp. viii + 440. \$3.25.—This is a co-operative textbook written "for those teachers who prefer a simple and brief presentation of the subject." The chapters are organized into 5 sets under the following titles: Introduction, Growth and Development, Mental Abilities and Individual Differences, The Learning Process and Evaluation of Learning Outcomes, and Personality Adjustment and Guidance. The several authors of the different chapters are P. A. Boynton, J. W. Charles, P. L. Harriman, F. F. Powers, W. C. Ryan, P. A. Witty, and J. W. Wrightstone. Each chapter is followed by questions and exercises for discussion and study, as well as by selected references for further reading and study.—M. G. Preston (Pennsylvania).

2438. Spence, K. W. Research in psychological sciences. *Univ. Ia. Stud. Aims Progr. Res.*, 1945, No. 77, 59-68.—The article aims to give a brief picture of the development of psychology as a science during the decade preceding Pearl Harbor and to show the ways in which the University of Iowa contributed. During the last 25 or 30 years,

there has occurred a radical revision of attitude on the part of psychologists toward the nature of their science. Today the majority of psychologists realize they must employ only concepts that have reference ultimately to publicly observable events, and they insist that psychology deal only with such data as are open to inspection and verification by everyone. In the accomplishment of the task of bringing order and meaning into the realm of these events, there have been two major developments: (1) the perfection of objective measuring techniques and (2) the design and arrangement of experimental conditions of observation that would lead to the discovery of functional relationships, or laws between the experimental variables. The development of the objective, scientific approach has been rapid in animal psychology, intelligence testing, and experimental psychology. Representative examples are given of the application of the scientific method at the University of Iowa to musical talent, graphic and plastic arts, stuttering, neurophysiological processes, learning, and social behavior. Important advances in theoretical psychology have been made possible through the philosophy of science.—*B. Wellman* (Iowa).

2439. Thomas, L. J. Efficient handler for small mammals. *Science*, 1945, 101, 496.—*F. A. Mote* (Connecticut).

2440. [Various.] Science in the university; by members of the faculties of the University of California. Berkeley, Calif.: University of California Press, 1944. Pp. x + 332. \$3.75.—See 19: 2418.

2441. Wadley, F. M. An application of the Poisson series to some problems of enumeration. *J. Amer. statist. Ass.*, 1945, 40, 85-92.—The author discusses problems of sampling populations and limitation of sampling in sparse populations. "If sample units are very thoroughly distributed through the material examined, successive sample totals tend to meet the fundamental conditions for the Poisson distribution, even where units within samples depart considerably from it. . . ."—*T. G. Andrews* (Chicago).

2442. Welch, L. The theoretical basis of psychotherapy; psychoanalysis, behaviorism, and Gestalt psychology. *Amer. J. Orthopsychiat.*, 1945, 15, 256-266.—Many examples are presented to illustrate the fact that the controversy among the psychoanalysts, the behaviorists, and the Gestalt psychologists has in many cases been one of terminology. The disagreement among these schools of thought, although still great, is much less than it was 15 to 20 years ago.—*R. E. Perl* (New York City).

2443. Wessel, J. P. Some notes on behavior. Parts I, II, III. *Sch. Sci. Math.*, 1945, 45, 242-248; 413-424; 515-522.—Part I describes the basic movements and adjustments which can be made by plants and animals. In Part II the author traces the development of the basic neural structure of man, comparing the final level of behavior of man with the behavior possibilities of a number of lower animals. Part III states that it is through the media of abstraction, ideation, and generalization that man has evolved the faculties which constitute expressions of specifically human behavior: linguistic, literary, quantitative, historical, scientific, spiritual, imagina-

tive, esthetic, social, and philosophical.—*G. S. Speer* (Central YMCA College).

[See also abstracts 2461, 2549, 2569, 2663, 2684, 2691.]

NERVOUS SYSTEM

2444. Adrian, E. D. Physiological mechanisms in the brain. *Brit. med. Bull.*, 1945, 3, 1-3.

2445. Apter, J. T. The projection of the retina on the superior colliculus of the cat. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 3.—Abstract.

2446. Barnes, T. C. Somatic conditions affecting brain-waves. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 5-6.—Abstract.

2447. Beevers, C. A. On the interpretation of electroencephalic potentials. *Proc. roy. Soc. Edinb.*, 1944, 62-B, 43-50.—"Some generally accepted facts about the observed distribution of EEG potentials are described. Two systems of dipole oscillators are considered as possible explanations of the observed potential distribution, and it is concluded that networks consisting of chains of linked synchronous dipole oscillators are the most likely source of the EEG potential." Single neurons are electrical oscillators of the relaxation type. "The bearing of the theory of linked oscillators on the physiology of mental processes, of sleep, and of 'central excitatory state' is briefly considered."—*L. H. Beck* (Brown).

2448. Bronk, D. W. The physical structure and biological action of nerve cells, with some references to the problem of human flight. In *Baitsell, G. A. [Ed.], Science in progress; fourth series*. New Haven: Yale University Press, 1945. Pp. 49-74.—Receptor cells serve to signal to the organism changes in its immediate environment. They are thus the first element in a system which activates the organism to adjust itself to these changes. The intensity of the change governs the number of receptor elements activated and also the number of nerve impulses discharged per unit of time. The energy for this action is derived from the blood and involves the consumption of oxygen. Air at high altitudes is low in oxygen, and changes in the gravitational force on the blood stream during flight maneuvers prevent the normal flow of blood throughout the body. These two aspects of flying are thus seen to interfere with the normal responsiveness of the organism to its environment. The new machine-made environment must be made to satisfy the biological requirements of the flyer.—*L. A. Riggs* (Brown).

2449. Burge, W. E. Scalp potential, an index to brain potential. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 11.—Abstract.

2450. Burge, W. E. Voluntary movement in relation to brain potential. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 12.—Abstract.

2451. Burge, W. E., & Purdy, R. A. A lowering of the negative potential of the motor area of the brain during physical exertion as a cause of muscular fatigue. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 11-12.—Abstract.

2452. Cohn, R., & Gersh, I. Changes in brain potentials during convulsions induced by oxygen under pressure. *J. Neurophysiol.*, 1945, 8, 155-160.

2453. Darrow, C. W., Pathman, J. H., & Kronenberg, G. Autonomic function and electroencephalogram. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 16.—Abstract.
2454. Dow, R. S., Ulett, G., & Tunturi, A. Electroencephalographic changes following head injuries in dogs. *J. Neurophysiol.*, 1945, 8, 161-172.
2455. Galambos, R., & Lowy, K. The electrical activity of single optic nerve fibers in cats. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 22.—Abstract.
2456. Halstead, W. C. Localization of neuropsychological functions in the prefrontal lobes. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 30-31.—Abstract.
2457. Kelly, A. H., Beaton, L. E., & Magoun, H. W. A brain stem mechanism for facio-vocal activity. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 40.—Abstract.
2458. Landahl, H. D. Neural mechanisms for the concepts of difference and similarity. *Bull. math. Biophys.*, 1945, 7, 83-88.—A neurobiophysical mechanism which reacts to differences in different modalities of a stimulus pattern is suggested. Another mechanism is suggested which reacts to similarity. The latter is measured by the number of neurons in common to the two stimulus patterns.—(Courtesy *Bull. math. Biophys.*).
2459. Loewi, O. Chemical transmission of nerve impulses. In *Baitsell, G. A. [Ed.], Science in progress; fourth series*. New Haven: Yale University Press, 1945. Pp. 98-119; 311.—The electrical theory of nerve transmission states that an effector organ is activated by an electrical wave which travels down the motor nerve and across a synapse to the effector. This theory does not account for the phenomenon of inhibition produced by other efferent nerves acting upon the same effector. Nor does it tally with the lack of tissue continuity across the synapse. The theory of chemical transmission is based on observations that acetylcholine is liberated by the activity of some nerve endings of the autonomic nervous system, while adrenaline is liberated by the activity of others. It seems likely, but has not yet been definitely established, that chemical transmission is a general property of all synapses, including those of the central nervous system. 35-item bibliography.—*L. A. Riggs* (Brown).
2460. Lorente de N6, R. Effects of choline and acetylcholine chloride upon peripheral nerve fibers. *J. cell. comp. Physiol.*, 1944, 24, 85-97.—Study of the action of large concentrations of choline and acetylcholine chlorides upon activity in the sciatic nerve of the bullfrog indicates that these substances neither depolarize the nerve fibers nor prevent the conduction of impulses. It is concluded that release of acetylcholine is not the mechanism underlying the conduction of nerve impulses in peripheral fibers, but that ACh is a substance that participates in the metabolic activity of the fibers, although the importance of this participation is at present not understood.—*F. A. Beach* (American Museum of Natural History).
2461. McCulloch, W. S. A heterarchy of values determined by the topology of nervous nets. *Bull. math. Biophys.*, 1945, 7, 89-93.—Because of the dromic character of purposive activities, the closed circuits sustaining them and their interaction can be treated topologically. It is found that to the value anomaly, when *A* is preferred to *B*, *B* to *C*, but *C* to *A*, there corresponds a diadrome, or circularity in the net which is not the path of any drome and which cannot be mapped without a diallel on a surface sufficient to map the dromes. Thus the apparent inconsistency of preference is shown to indicate consistency of an order too high to permit construction of a scale of values, but submitting to finite topological analysis based on the finite number of nervous cells and their possible connections.—(Courtesy *Bull. math. Biophys.*).
2462. Masson, P. Étude de deux névromes tactiles: néoformation hétérotopique de corpuscules de Wagner-Meissner. (Study of two tactile neuromata: heterotopic development of Wagner-Meissner corpuscles.) *Rev. canad. Biol.*, 1945, 4, 104-113.—Two male patients, with painful amputation neuromata at the dorsal face of the fingers, showed invasion of the dermal papillae by regenerated nerve fibers. These fibers, upon contact with the epidermis, had given rise to many perfectly formed W-M corpuscles. Since this region normally lacks these structures, "this observation shows that the W-M corpuscles can be built entirely by tactile nerve fibers. . . . It is the nature of the nerve fibers which controls their Meissnerian differentiation, and not the nature of the tegument into which they spread."—*D. K. Spelt* (Mary Baldwin).
2463. Murphy, J. P., & Gellhorn, E. Hypothalamic facilitation of the motor cortex. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 53-54.—Abstract.
2464. Nachmansohn, D. On the chemical mechanism of nervous action. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 54.—Abstract.
2465. Rosenblueth, A. Electrogramas del nervio y de los músculos. (Electrograms of nerve and muscle.) *Arch. Inst. Cardiol., Méx.*, 1944, 14, 12-29.—See *Biol. Abstr.* 19: 10432.
2466. Schoepfle, G. M. Nerve impedance in relation to excitation. *J. cell. comp. Physiol.*, 1944, 24, 99-107.—Studies of the frog sciatic nerve indicate that the interval of threshold current duration is concerned with the charge of a capacity to a critical voltage. Subsequent processes leading to fiber response are initiated only when this threshold voltage is reached.—*F. A. Beach* (American Museum of Natural History).
2467. Shanes, A. M. The effect of high potassium concentrations on the aerobic and anaerobic fractions of the resting potential of frog nerve. *J. cell. comp. Physiol.*, 1944, 23, 193-196.—"The depression of the total resting potential of the frog sciatic is a linear function of the logarithm of the potassium concentration. The aerobic fraction of the resting potential is suppressed by potassium in the same manner as 50% of nerve oxygen consumption. These results are consistent with the proposal that the maintenance of a specific phosphorylation is responsible for the resting potential."—*F. A. Beach* (American Museum of Natural History).
2468. Spitz, R. A. Diacritic and coenesthetic organizations; the psychiatric significance of a

functional division of the nervous system into a sensory and emotive part. *Psychoanal. Rev.*, 1945, 32, 146-162.—"The central nervous system is divided into two parts called respectively the diacritic sensory organization and the coenesthetic emotive organization. The significance of this division for the approach to traumatic neuroses, to modern psychiatric therapy and to psychoanalytic theory is elaborated with the help of pathological phenomena observed in early infancy." There is a bibliography of 59 titles.—L. B. Heathers (Smith).

2469. Stern, K. Cerebral localisation and psychiatry. *McGill med. J.*, 1942, 11, No. 4, 9-17.—A brief review is given of the history of brain localisation, with some clinical observations.—K. S. Bernhardt (Toronto).

2470. Toman, J. E. P. Cortical responses to cortical stimulation in relation to the spontaneous EEG of the rabbit. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 72.—Abstract.

2471. Williams, M., & Burge, W. E. The effect of sleeplessness on brain potential. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 77.—Abstract.

2472. Woolsey, C. N., & Wang, G. H. Somatic sensory areas I and II of the cerebral cortex of the rabbit. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 79.—Abstract.

2473. Wycis, H. T., & Spiegel, E. A. Influences of cortical areas upon the vestibulo-ocular reflex arc. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 79-80.—Abstract.

[See also abstracts 2419, 2514, 2515, 2516, 2533, 2536, 2551, 2559, 2570, 2571, 2614.]

RECEPTIVE AND PERCEPTUAL PROCESSES

2474. Bates, G. N. A further study in the field of color vision. *McGill med. J.*, 1940-1941, 10, No. 3, 55-66.—Of 107 medical students at McGill University tested with the Ishihara Test, 5 were seriously defective in color vision and 24 showed some defect. It is recommended that all incoming medical students should be tested for color defects.—K. S. Bernhardt (Toronto).

2475. Bitterman, M. E. Studies in visual fatigue and efficiency. *Bull. Canad. psychol. Ass.*, 1945, 5, 29-31.—The findings of the first series of experiments "do not justify the confidence which Luckiesh and Moss have placed in heart rate and frequency of blinking as indices of visual efficiency." Other experiments designed to analyze reading decrement into its components lead to the conclusion that "(1) continuous 'squinching' in attempt to achieve better distance acuity is an important factor in decrement; (2) the element of *maintained* adjustment contributes more to decrement than either degree of accommodation and convergence (exclusive of the temporal factor) or 'dynamic muscular exercise.'"—F. W. Finger (Virginia).

2476. Braun, R. Nyktometeruntersuchung als Ergänzung und Ersatz der Adaptionprüfung. (Nyc-tometer investigations as a supplement to and substitute for adaptation testing.) *v. Graefes Arch. Ophthalm.*, 1942, 144, 41-62.—The examination of

600 cases aimed at finding out the adaptation of the fovea centralis to minor illumination. The author concludes that the fovea takes part in adaptation to darkness. He found in the first two minutes an improvement of the visual performance in the field of central vision. The sensitivity of the fovea is, however, far less than that of the periphery.—H. Winzer (New York City).

2477. Burian, H. M., & Ogle, K. N. Meridional aniseikonia at oblique axes. *Arch. Ophthalm.*, Chicago, 1945, 33, 293-310.—Asthenopic symptoms are frequently associated with the wearing of cylindrical corrections at oblique axes. One explanation proposed is that the optical correction introduces a magnification in the meridian of power, which results in apparent rotary deviations of lines in other meridians. Under conditions of binocular vision, this deviation is interpreted stereoscopically. The false spatial localization resulting is demonstrable under test conditions where other clues are eliminated, and provides a means of measuring the declination error. The measured error usually differs somewhat from the calculated error introduced by the lenses, perhaps because of cyclophoria or because of basic meridional aniseikonia. Correction of the measured error by oblique meridional size lenses resulted in some relief of symptoms in all but 11 of the 63 cases corrected and followed. Nine representative cases are fully discussed. Comments of L. T. Post and E. A. W. Sheppard are reported.—M. R. Stoll (American Optical Co.).

2478. Campbell, P. A. The present status of the problem of aviation deafness. *Trans. Amer. Acad. Ophthalm. Otolaryng.*, 1944-1945, 49, 72-74.—Campbell discusses the auditory stresses to which the airman is subjected during training and operational flying and describes protective devices, including sound conditioning in the more recent aircraft. The noise levels in the new B-29 are within the comfort range. The various ear protective devices to keep out ambient noise are of little aid, since until recently none have been developed which permit sufficient air flow through them during ascent and descent to equalize the barometric pressure inside the external canal with that outside.—M. E. Morse (Baltimore, Md.).

2479. Campos, E. Considerações sobre o daltonismo. (Notes on Daltonism.) *Hospital, Rio de J.*, 1939, 16, 523-527.—The Ishihara test revealed 139 cases of relative and 99 cases of absolute color-blindness in 4100 applicants for employment by a Brazilian railroad and 41 cases in 713 patients in the railroad hospital.—(Courtesy *Biol. Abstr.*).

2480. Carson, L. D. Ocular effects of altitude flying and of deep sea diving. *Arch. Ophthalm.*, Chicago, 1945, 33, 173-176.—Anoxia appears to be responsible for diminished perception of low contrast images, increased light threshold, impaired flicker-fusion response, rod response and color response, reported narrowing of visual fields and enlargement of the blind spot, and reduction of accommodation and convergence, in that administration of oxygen results in disappearance of the deficiencies when barometric pressure remains constant. Air emboli may produce more persistent difficulties, such as partial blindness, hemianopsia, scintillating sco-

tomas, nystagmus, and diplopia. These may persist 1-60 hours.—*M. R. Stoll* (American Optical Co.).

2481. Detwiler, S. R. On epinephrine and retinal photomechanical responses. *Proc. nat. Acad. Sci., Wash.*, 1945, 31, 137-142.—Photomechanical responses among amphibians, birds, and fishes are influenced by other factors than light alone. Injections of epinephrine hydrochloride in dark-adapted frogs have induced pigmental expansion (light condition) in the dark. The author, investigating this phenomenon and using controlled injections of epinephrine varying in degree of pH, presents evidence that supports the hormonal theory (as opposed to the acid-stimulation interpretation) for these photomechanical shifts. The results also reveal that pigment migration does not always co-exist with cone contraction in dark-adapted frogs subjected to epinephrine injections.—*L. A. Pennington* (U. S. Naval Reserve).

2482. Durup, G., & Rousselot, L. Seuils absolus et seuils différentiels en vision nocturne. (Absolute thresholds and differential thresholds in night vision.) *Année psychol.*, 1942, 40, 171-192.—Measurement of differential visual sensitivity in 11 subjects during the course of dark adaptation gave curves that fell off rapidly at first, and then more and more slowly (similar in form to the curve of absolute threshold). At a given level of adaptation, $\Delta B/B$ (where B is intensity) was found greater for a smaller value of B . The relation between $\Delta B/B$ and B/b (where b is the absolute threshold for the given state of adaptation) can be indicated by a curve of regular form. It would appear that the fraction $\Delta B/b$ can be taken as a satisfactory index of luminosity and the fundamental factor in determining the differential threshold under a particular set of ocular conditions.—*F. W. Finger* (Virginia).

2483. Elhardt, W. P. The effect of emotions on the occurrence of pain. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 19.—Abstract.

2484. Glee, M. Über normale und gestörte Dunkeladaptation. (Concerning normal and disturbed dark adaptation.) *v. Graefes Arch. Ophthalm.*, 1943, 145, 465-488.—The author studied the relations between lack of vitamin A and disturbed dark adaptation. One thousand persons were examined with an adaptometer. Influence of the vitamin A contents of the blood on the capacity of dark adaptation was not found. Therefore it is not regarded possible to conclude from an examination of adaptation as to the vitamin A contents of the body.—*H. Winzer* (New York City).

2485. Graybiel, A. The oculo-gyral illusion. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 25-26.—Abstract.

2486. Hecht, S. Energy and vision. In *Bailliss, G. A. [Ed.], Science in progress; fourth series*. New Haven: Yale University Press, 1945. Pp. 75-97; 309-310.—See 18: 3394.—*L. A. Riggs* (Brown).

2487. Hoff, E. C. Night vision selection. *Hosp. Cps Quart., Wash.*, 1945, 18, No. 5, 16-19.

2488. Hughson, W. Hearing aids. *Trans. Amer. Acad. Ophthalm. Otolaryng.*, 1943-1944, 48, 180-190.—The Academy has appointed a committee to insure every possible aid for aural war casualties. The im-

mediate solution of the problem is the proper fitting of adequate hearing aids. The man with a handicapping loss of 35-60 decibels in the upper speech range is liable to be forgotten, as he does not fit into the Veterans' Bureau program of rehabilitation, which is primarily concerned with the profoundly deaf. The psychology of deafness is the essence of all compensation by hearing aids, and the patient is concerned only with increased ability to understand speech. Hughson describes the construction and fitting of vacuum tube hearing aids, speech reception tests, measurements of effectiveness, and selective amplification.—*M. E. Morse* (Baltimore, Md.).

2489. Hughson, W., & Westlake, H. D. Manual for program outline for rehabilitation of aural casualties both military and civilian. *Trans. Amer. Acad. Ophthalm. Otolaryng.*, 1943-1944, 48, Suppl., 3-15.—The essential feature of the program of the Committee of the Academy is co-operation between the Committee and state institutions and agencies. The probability is that, in the majority of cases, medical help can at best restore only partial hearing, with the result that the patient will have to make complete personal, vocational, and economic readjustments. The plan provides for state subcommittees to establish clearinghouse clinics and also a hearing center for each 1,000,000 population. The best source of help for the psychological study and personality readjustment will be the psychology departments of state universities or other state educational institutions. Lip reading and speech retraining are provided for through state departments of education, and vocational services through state vocational rehabilitation bureaus. Follow-up contacts are carried out by these various agencies.—*M. E. Morse* (Baltimore, Md.).

2490. Humphrey, G., Jeffery, M., & Park, A. A laboratory technique for investigating the vertical-horizontal illusion of size ("moon illusion"). *Bull. Canad. Psychol. Ass.*, 1944, 4, 1-3.—By using an arrangement of mirrors, 31 subjects matched the apparent size of a variable horizontal disc with the apparent size of a constant disc optically 45' or 165' zenithwards. The methods of limits and constant stimuli were used. All observers save one showed a regular phenomenal size-increase of horizontal over vertical discs. The extent of the increase was, however, considerably less than that recorded in previous investigations of the moon illusion. Individual differences were noted.—*L. H. Beck* (Brown).

2491. Jordan, R. S. Depth perception in relation to variations in visibility. *Amer. J. Optom.*, 1945, 22, 201-209.—Nineteen subjects were tested on the Howard-Dolman apparatus under normal conditions and with the visibility of one eye and then the other reduced by means of a diffusing lens. Results were not clear-cut, and the Howard-Dolman apparatus was found too insensitive for a satisfactory test. However, the author concludes that depth perception ratings tend to vary with relative visibility ratings, that individuals with more nearly balanced visibility tend to have better depth perception, as do also those possessing slightly greater visibility in the dominant eye, and that some individuals show rapid improvement in depth perception under conditions of the test.—*M. R. Stoll* (American Optical Co.).

2492. Kos, C. M. Effect of barometric pressure changes on hearing. *Trans. Amer. Acad. Ophthalm. Otolaryng.*, 1944-1945, 49, 75-81.—Kos discusses the mechanism, characteristics, and management of aviation pressure deafness. Even repeated pressure variations in the middle ear during ascent or descent exert only fleeting changes in hearing when prompt intermittent compensation is effected through the Eustachian tubes. Permanent injury results only when their permeability is restricted, and is proportionate to the frequency and duration of the obstruction. The preponderant and most severe losses are for the higher tones.—*M. E. Morse* (Baltimore, Md.).

2493. Lambert, E. H. The physiologic basis of "blackout" as it occurs in aviators. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 43.—Abstract.

2494. Lederer, L. G. The utilization of dark adaptation in airline transport pilots. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 45.—Abstract.

2495. Lee, R. H., Finch, E. M., & Pounds, G. A. Periodic fluctuations in the dark adapted threshold. *Amer. J. Physiol.*, 1945, 143, 6-10.—Periodic fluctuations were observed in the dark adaptation curves of about one third of the subjects tested in the laboratory presenting this report. The fluctuations are greater near the terminal threshold, and the period of the fluctuations is too long to permit explanation by the quantum hypothesis (Hecht) or any type of instantaneous probability hypothesis. Amplitude and period of fluctuation vary from day to day but are similar when the same subject is tested twice with a half-hour rest between tests. The changes are less noticeable in monocular tests than in binocular, and the fluctuations observed in one eye may be in or out of phase with those observed in the other eye. It is possible that interaction between the two eyes may produce the changes in amplitude of fluctuation observable in binocular dark adaptation tests.—*T. G. Andrews* (Chicago).

2496. Machle, W. The effect of gun blast upon hearing. *Trans. Amer. Acad. Ophthalm. Otolaryng.*, 1944-1945, 49, 90-96.—Machle studied under controlled conditions 25 gunnery instructors who had had repeated over-all exposures ranging from 2 to 30 months. Although the average hearing loss is not great, it is common and potentially serious. It is similar to that from sustained high noise levels. The points of maximum depression are distributed equally among the frequencies 2896, 4096, and 5792. With repeated equal exposures the damage is cumulative, apparently because of incomplete recovery in the intervals. Recovery regularly occurs in the first few days after cessation of daily practice up to 6-8 days; but after months of work, return to the original levels is doubtful. The relationship between magnitude of exposure as measured by blast pressure and the resultant hearing loss cannot be narrowly defined because of the great individual differences in susceptibility. A number of ear protective devices are quite effective.—*M. E. Morse* (Baltimore, Md.).

2497. Narikashvili, S. P. Ob individual osobennostiakh techeniya purkin'evskogo posledovatel'nogo obraza. (On individual peculiarities in the progress of the Purkinje afterimage.) *Bull. Acad. Sci. U.S.S.R., Ser. biol.*, 1944, No. 3, 129-138.—The progress

of the Purkinje afterimage (second positive phase) in 20 observers was studied by means of a momentary stationary stimulus and a moving stimulus. Two main types of progress were observed: (A) an afterimage of short latent period and prolonged duration (80% of the observations) and (B) an afterimage of prolonged latent period and short duration. Type A predominated with the method of stationary stimulation. Individual differences relating to brightness, shade of color, and phase were observed. It is suggested that these typical differences may be due to the general type of central nervous system activity present, that is, whether the excitatory or the inhibitory processes are dominating. English summary.—*L. H. Beck* (Brown).

2498. Narikashvili, S. P. Vliyanie zvukovykh razdrashenii na techenie purkin'evskogo posledovatel'nogo obraza. Soobshchenie I. (The influence of sound stimulation on the progress of the Purkinje afterimage. Communication I.) *Bull. Acad. Sci. U.S.S.R., Ser. biol.*, 1944, No. 3, 139-149.—Sound stimulation of various frequencies (100-4000 cycles) and of various intensities (10-110 db.) influenced as follows the progress of the Purkinje afterimage (second positive phase induced by a stationary stimulus and by one moving in a circle): (1) When the sound stimulation preceded that of the light by 30-60 sec., (a) faint sound stimulation (up to 50-60 db.) prolonged the duration only, (b) strong sound stimulation (exceeding 50-60 db.) increased the brightness, decreased its duration, and made its color richer, (c) individual differences in response to frequency changes at constant intensity were noted, and (d) the foregoing effects persisted 2-3 min. after the sound had ceased. (2) When the sound stimulation started during the progress of the afterimage, (a) sounds up to 40-50 db. did not change the afterimage and (b) sounds above 50-60 db. temporarily damped the afterimage at the onset of sound stimulation, the intensity of which increased the amount and duration of damping. (3) When the sound stimulation ceased during the progress of the afterimage, the afterimage was damped temporarily. English summary.—*L. H. Beck* (Brown).

2499. Narikashvili, S. P. Vliyanie zvukovykh razdrashenii na techenie purkin'evskogo posledovatel'nogo obraza. Soobshchenie II. (The influence of sound stimulation on the progress of the Purkinje afterimage. Communication II.) *Bull. Acad. Sci. U.S.S.R., Ser. biol.*, 1944, No. 3, 150-155.—Under conditions of a stationary light stimulus, the favorable influence of various sound frequencies on the progress of the Purkinje afterimage was studied; simultaneously the intensity of the obtained secondary auditory afterimage was determined. Comparison of the results obtained led to the following conclusions: (1) The visual Purkinje afterimage did not change under the influence of acoustic stimulation in cases where, after cessation of the sound, the secondary auditory afterimage was either not obtained at all or its intensities were below 8-10 db. (2) The favorable influence of sounds on the progress of the visual afterimage was the stronger, the more intensive was the secondary auditory afterimage after the sound had ceased. (3) On the basis of the above considerations, it is believed that both (a) the change in the progress of the visual afterimage

occurring under the influence of sounds and (b) the appearance of the secondary auditory afterimage are reflecting a certain general process in the central nervous system which breaks the boundaries between visual and auditory fields. English summary.—*L. H. Beck* (Brown).

2500. Peddie, W. Additional note on the trichromatic theory of color vision. *Phil. Mag.*, 1943, 34, 426-430.—The conclusions of a previous paper by the author (*op. cit.*, 1942, 33, 559-575) are reiterated and expanded, to the effect that the trichromatic theory of color vision is the only one consistent with the facts of normal color vision.—*L. A. Riggs* (Brown).

2501. Piéron, H. Le dépistage des anomalies de la vision chromatique. (Analysis of the anomalies of color vision.) *Année psychol.*, 1942, 40, 94-134.—Piéron discusses the classification of the 4 major types of defect in color vision and considers the advantages and sources of error of the various clinical methods of examination. From a practical point of view, dichromats can be diagnosed reasonably well with the Ishihara type of test. One must be careful not to classify as red-green blind an individual whose only error is to see the pattern which the red-green blind, but not the normal subject, is expected to see; some individuals with normal or even superior color vision possess a very highly developed perceptive capacity that makes these patterns visible.—*F. W. Finger* (Virginia).

2502. Rowland, W. M., & Sloan, L. L. Night blindness in flying personnel; observations on patients studied at the AAF School of Aviation Medicine. *J. Aviat. Med.*, 1945, 16, 49-58.—This article presents data on 14 service personnel who experienced difficulty in night operations. Four tests of night vision were used: the AAF-Eastman Night Vision Tester, Hecht-Shlaer Portable Adaptometer, SAM Portable Night Vision Tester, and Sloan Perimetric Light Sense Tester (see 14: 766). In 4 of the 14 individuals, the visual complaints were found to be due to factors other than poor night vision (extraocular muscle imbalance, neurosis, lack of experience in night flying, and bilateral central retinitis). Four cases of defective night vision improved with extensive vitamin A therapy, 3 showed no improvement, and 3 were not available for retests.—*A. Chapanis* (U. S. Army Air Forces).

2503. Runge, R. A theory of photosensitivity of some lower animals. *Bull. math. Biophys.*, 1945, 7, 59-67.—The two-factor nerve excitation theory is applied to the photoreactions of some lower animals along with the assumption that the threshold itself varies under the action of light, thus behaving formally like a third factor. The dependence of the reaction time upon the intensity of the stimulus is derived and is shown to follow the Bunsen-Roscoe law. The dependence of reaction time upon the time of exposure to light of a fixed intensity is derived and analyzed. The effect of dark adaptation upon the reaction time is analyzed quantitatively. Light adaptation and the effects of termination of exposure after light adaptation are discussed from the standpoint of this theory, and the theory is found to be in agreement with observations.—(Courtesy *Bull. math. Biophys.*).

2504. Ségel, J. Le mécanisme de la vision en lumière intermittente. (The mechanism of vision in intermittent light.) Paris: Alcan, 1940. Pp. 100.—Contrary to the classic doctrine that the fusion of intermittent stimuli depends upon the homogenization of initial photochemical processes in the retina, the writer contends that the frequency of stimulus variation is duplicated in the rate of discharge in the optic nerve well beyond the fusion frequency. In the higher centers he postulates an interaction of the afferent influx with the autonomous rhythmic activity of the cerebral cortex. Since intensity cannot, according to this view, condition the frequency of afferent discharge, its correlate becomes the number of active elements. Supporting experimental evidence is presented.—(Courtesy *Année psychol.*).

2505. Senturia, B. H. The effect of aircraft noise upon hearing. *Trans. Amer. Acad. Ophthalm. Otolaryng.*, 1944-1945, 49, 82-89.—Senturia compared the audiograms of 500 accepted candidates with little or no flying experience and no exposure to aircraft noise for 30 days with cadets who had had 210 hours of flying. Noise in most combat craft remains at alarmingly high levels which not only cause auditory fatigue but approach pain. In sound-treated bombers, however, the levels are reasonably low (95-110 db.). Before exposure, only 33% of ears showed threshold curves deviating more than 10 db. below the accepted zero line at any frequency from 1024 to 11,584 c.p.s. Tonal dips of 15 db. or more above the speech range occurred in 26% of the ears. After exposure, a small number of ears showed slightly increased V-notches and high tone losses, which however, did not interfere with hearing of speech. Susceptibility and recovery time varied greatly, but in a few cases the losses will be permanent. Nevertheless, in young, well-selected subjects to whom the insults are not too great, recovery is the rule. At present, hearing loss attributable to flight is a minor problem.—*M. E. Morse* (Baltimore, Md.).

2506. Shaxby, J. H. On sensory energy, with special reference to vision and color-vision. *Phil. Mag.*, 1943, 34, 289-314.—Energy is transferred from a stimulus to the molecules of the material of a sense organ. The receptor energy so produced is in the form of damped vibrations causing the ejection of electrons. This energy is also to be regarded as the quantity S in the Weber-Fechner Law $S = K \log I/I_0$, for any of the senses. In the particular case of color vision, the energy values of the visibility function for different wave lengths are calculated and are shown to be in agreement with the observed values. It is assumed that the discrimination of colors is on the basis of "the electronic content of the discharges of action current." In this way the necessity is avoided for assuming three separate types of cone receptor together with their separate effects upon the higher visual centers.—*L. A. Riggs* (Brown).

2507. Shilling, C. W. Aero-otitis media and auditory acuity loss in submarine escape training. *Trans. Amer. Acad. Ophthalm. Otolaryng.*, 1944-1945, 49, 97-102.—Subjected to a 50-lb. air pressure in the escape training tank as a prerequisite for entrance to the School, 30% of the candidates at the New

London Base have difficulties leading to aero-otitis media and resultant hearing loss, which is sometimes permanent and disabling. The problem is similar to that of flying personnel. The damage is very variable: in some ears the low tones are affected; in others, the high tones; in still others the loss is general over the entire range. If thorough preselection and exclusion of men with ear, nose, and throat abnormalities were combined with a check on ability to perform the Valsalva maneuver, rejections might be reduced to 2-3%.—*M. E. Morse* (Baltimore, Md.).

2508. Steadman, B. St. J. Further investigation of night vision among personnel of an A. A. unit. *J. R. Army med. Cps.*, 1943, 80, 73-82.—This paper reports "efforts made to discover or devise a simple, practical and inexpensive test for night vision, suitable for use in the field and which could be operated by a responsible N. C. O. without prolonged special training." Various tests were tried, and the reasons for their rejection are given. A test developed by W. D. Wright was then modified for this purpose, and the modified test, procedure, and results obtained on 1,027 men are herein described.—*C. N. Cofer* (U. S. Naval Reserve).

2509. Sulzman, J. H., & Pence, J. R. Night vision test. *Hosp. Cps Quart.*, Wash., 1945, 18, No. 5, 8-10.

2510. Talbot, S. A. Physiology of the visual cell. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 70.—Abstract.

2511. Valasek, J. Resolving power. *Amer. J. Phys.*, 1945, 13, 50.—The term "resolving power" has no meaning when applied to the observation of a single particle. "Complete resolution is the distinct separation of two images and necessarily implies the existence of at least two corresponding particles."—*L. H. Beck* (Brown).

2512. Weiss, H. B. Insect response to colors. *Sci. Mon.*, N. Y., 1945, 61, 51-56.—Insects are sensitive to a spectrum extending from about 3600 ÅU to about 7200 ÅU. The investigations of both the electrical (optic nerve) and motor (behavioral) responses suggest that insects do not possess true color vision. Studies which indicate the latter are explained in terms of brightness differences in the stimuli.—*E. Girden* (Brooklyn).

2513. Wolff, H. G. Some observations on pain. *Harvey Lect.*, 1943-1944, 39, 39-95.—The subject is treated under the following headings: concepts concerning pain; qualities of pain and their significance; cutaneous pain; factors altering the pain threshold; deep pain (characteristics and mechanism); and dual aspects of pain (perception, reaction). Until the end of the nineteenth century, pain was considered to be exclusively a feeling state. Later, with the discovery of special anatomic equipment and mechanisms, interest was focused on its perceptual aspects. The author's conclusions are that, although pain is a sensation, yet because of its intimate linkage with strong feelings, beliefs, and other reaction patterns, the latter may dominate the experience and modify the reaction. Although analgesics actually raise the pain threshold, their major function lies in changing the attitudes and

feelings, which are the aspects most relevant to the sufferer. However, pain is a specific sensation with its own structural and functional properties. Both concepts formulate fundamental aspects of the pain experience. 74 references.—*M. E. Morse* (Baltimore, Md.).

[See also abstracts 2445, 2455, 2458, 2462, 2472, 2523, 2524, 2562, 2572, 2685, 2704, 2713, 2717, 2732, 2755.]

LEARNING, CONDITIONING, INTELLIGENCE

(incl. Attention, Thought)

2514. Allen, W. F. Effect of auditory cortex lesions on correct conditioned auditory differential responses in dogs. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 2.—Abstract.

2515. Bean, J. W., Wapner, S., & Siegfried, E. C. Residual disturbances in the higher functions of the C. N. S. induced by oxygen at high pressure. *Amer. J. Physiol.*, 1945, 143, 206-213.—Young albino rats were subjected to high O₂ pressure for 16 exposures and then trained on the Lashley Maze III, a control group being treated comparably but without high O₂ pressure exposure. No significant difference in learning ability was demonstrated, although the retention of the maze was adversely affected in a marked manner by exposures to increased O₂ pressure. This result is interpreted to mean that the higher C. N. S. functions of memory are inhibited by intermittent exposures to increased O₂ pressure, which has a cumulative effect.—*T. G. Andrews* (Chicago).

2516. Becker, R. F., Groat, R. A., & Windle, W. F. Effects of concussion upon the retention of learning in the guinea pig. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 6-7.—Abstract.

2517. Day, E. A. La atención en los dementes paráliticos. (Attention in dementia paralytica.) *Bol. Inst. Psiquiat., Rosario*, 1943, 7, 82-128.—In the 20 cases whose clinical protocols are also presented, characteristic disturbances of attention occur as tested by the Bourdon and other methods. Accommodation is prolonged, full attention is manifested in only a third of the cases, motor reaction time is as high as 142", and the relation between motor velocity and constancy of attention is greatly reduced.—*H. D. Spoerl* (Jeffersonville, Vt.).

2518. Deutsch, L. Talent or training? *Indiv. Psychol. Bull.*, 1945, 4, 79-84.—Certain skills seem to be accessible to a very small number of people. "In opposition to this idea, Individual Psychology assumes that the character and mind of a normal human being are the totality of acquired qualities, independent of inborn dispositions. . . . Mental abilities . . . have to be acquired by the individual himself. A skill is developed by training, and no skill can ever grow without adequate training. The 'untalented' do not fail in spite of proper training; they just fail to use it." The author illustrates his viewpoint in the field of musical skill. The relationship between childhood experiences and the manifestation of talent is discussed.—*S. B. Sarason* (Southbury Training School, Conn.).

2519. Lennox, W. G., & Collins, A. L. Intelligence of normal and epileptic twins. *Amer. J. Psychiat.*, 1945, 101, 764-769.—The intelligence of 93 twins—63 without a history of epileptic seizures and 30 with such history—was studied. The findings indicate that, contrary to medical opinion, "a person with normal mentality who develops idiopathic (genetic) epilepsy is much less likely to become mentally deteriorated than a person who develops symptomatic (acquired) epilepsy." The average intelligence quotients found were as follows: non-epileptic twinned individuals, 109; non-epileptic co-twins of epileptics, 103; epileptics without brain injury, 96; and epileptics with brain injury, 77.—R. D. Weitz (Jersey City, N. J.).

2520. Pickford, R. W. *Déjà vu* in Proust and Tolstoy. *Int. J. Psycho-Anal.*, 1944, 25, 155-165.—Two examples of *déjà vu*, described in Tolstoy's *Childhood, Boyhood and Youth* and in Proust's *A la recherche du temps perdu*, are discussed in detail to illustrate ego, superego, and id relationships leading to the experiencing of such a phenomenon.—M. H. Erickson (Eloise Hospital).

2521. Polya, G. How to solve it; a new aspect of mathematical method. Princeton, N. J.: Princeton University Press, 1945. Pp. xv + 204. \$2.50.—The principles of heuristic reasoning, applicable to problems in all fields, are here presented and illustrated with mathematical problems. Part I outlines (with repetition and many examples) how a class may be taught the correct principles of approaching and solving problems, with active participation rather than mere acceptance of results obtained by others. Part II restates the principles in the form of answers to questions. Part III is a dictionary of heuristic terms, such as analogy, corollary, generalization, Leibnitz, and symmetry, with many alphabetical headings serving to introduce further discussion of the principles or to present more examples of the solution of problems and puzzles. Throughout the many examples, the author emphasizes the search for related problems and for practical applications of solutions.—C. M. Harsh (Nebraska).

2522. Sherman, M. Intelligence and its deviations. New York: Ronald Press, 1945. Pp. x + 286. \$3.75.—The author presents a general appraisal of the literature on the following topics: definition of intelligence; mental growth; intelligence and physical development; environment and intelligence; intelligence and delinquency; intelligence and psychoses; classification of mental deficiency; mental deficiency and specific brain pathology; epilepsy; mongolism; cretinism; mental testing; the adjustment of the defective; some genetic problems; and intellectual superiority. A bibliography of 13 pages and a glossary of technical terms are given.—W. S. Hunter (Brown).

[See also abstracts 2419, 2426, 2599, 2622, 2624, 2629, 2741, 2742, 2756, 2767, 2776, 2795, 2797.]

MOTOR AND GLANDULAR RESPONSES

(incl. Emotion, Sleep)

2523. Adler, F. H. Pathologic physiology of convergent strabismus; motor aspects of the nonaccom-

modational type. *Arch. Ophthalm.*, Chicago, 1945, 33, 362-377.—Convergent squint, except when due to paralysis of ocular muscles, represents an abnormal convergence innervation. Association of convergence of accommodation accounts for only about one third of the cases. The author reviews in detail the physiologic mechanisms involved in normal ocular movements and concludes that the site of failure in other cases of excessive convergence innervation remains a problem for further research. He suggests that binocular vision may be inhibited when the eyes are not in the natural position with respect to the orbits, that the fusional fixation reflex should be further investigated and attempts made to determine the location and connections of the assumed cortical centers for voluntary convergence, and that the tendency to esotropia associated with alcoholic intoxication and anoxia may represent disturbances analogous to development of convergent squint. Evidence seems to eliminate possible abnormality of the vestibular apparatus, so important in regulating the tone of the ocular muscles.—M. R. Stoll (American Optical Co.).

2524. Albe, D., & Fessard, A. Un nouvel appareil pour la mesure des temps d'accommodation visuelle. (A new apparatus for the measurement of visual accommodation time.) *Année psychol.*, 1942, 40, 135-151.—The time required for the optical system to change its adjustment to varied fixation distances is a function of numerous factors in the situation. To evaluate these, for example in devising a selection battery for pilots, a practical measuring apparatus must be available. The writers prefer one with a free field and successive illumination of stimulus plates. The near plate is seen by transmitted light, while the far plate, illuminated by the same light beam, is viewed reflected in a mirror. Each phase of the illumination cycle is regulated precisely by shutters, and thus accurate measurement of the time relations is possible. Experimental data are presented relating the accommodation time to the dimensions of the far stimulus plate.—F. W. Finger (Virginia).

2525. Alekseenko, N. Iu., & Voronin, L. G. *Dvizheniia pustogo zheludka u obez'ian Macacus rhesus*. (Movements of the empty stomach of *Macacus rhesus* monkeys.) *Bull. Acad. Sci. U.S.S.R., Ser. biol.*, 1944, No. 3, 177-184.—The movements of the empty stomach were recorded with the aid of a balloon introduced into the stomach through a fistula. They consisted of single frequent contractions with intervals of 2-3 min. Some intervals lasting 5-15 min. were observed. The movements were unaffected by the monkey's attempts to disengage himself from the stand, his state of excitement, or by pain (with few exceptions). Vomiting inhibited the movements for about 10 min. The smell and sight of food did not stop the stomach contractions. During the feeding period the stomach movements suffered inhibition, and the contractions either ceased altogether or they were replaced by small irregular and continuous digestive movements. Hypodermic injections of pilocarpine wholly inhibited the movements of the empty stomach for 50-60 min.; those of atropine, for 4-5 hr. Acetylcholine produced no effect in small doses; however

an increase of the dose inhibited movements for 8-10 min., after which time small frequent contractions followed. These lasted for about 10 min., and then the normal state was restored. English summary.—*L. H. Beck* (Brown).

2526. Allen, S. C., Taylor, C. L., & Hall, V. E. A study of orthostatic insufficiency by the tiltboard method. *Amer. J. Physiol.*, 1945, 143, 11-20.—Data are reported by the authors as a basis for a standard tiltboard test which will measure individual differences in resistance to the circulatory failure induced by the centrifugal forces encountered in human flying. Of the 111 healthy young men tested, about 20% were found to be fainters on the tiltboard test, and about the same percentage was found when they stood quietly after running to exhaustion on a treadmill. Individuals who fainted in one of these tests were very likely to faint also in the other and to have a past history of fainting. Heart rate and blood pressure measures did not differentiate the fainters and the nonfainters until about four minutes before collapse, and the first sign was a fall in systolic pressure followed by a decline in diastolic pressure, both of which fell markedly in the last minute. Evidences of cerebral anemia appeared about three minutes before collapse. The most reliable signs detecting fainters were the performances on the tiltboard. Appropriate physical training may aid fainters in developing the ability to withstand gravitational stress.—*T. G. Andrews* (Chicago).

2527. [Anon.] Tests in human resistance to cold. *J. Aviat. Med.*, 1945, 16, 90; 98.—Meals high in carbohydrates or fats are valuable in maintaining body temperature and in reducing the effect of cold upon psychomotor performance. Three small meals during an 8-hour exposure period are more effective than one large meal.—*A. Chapanis* (U. S. Army Air Forces).

2528. Bartley, S. H., & Chute, E. A preliminary clarification of the concept of fatigue. *Psychol. Rev.*, 1945, 52, 169-174.—There is no term in current scientific usage more in need of clarification than fatigue. "Fatigue, rather than being looked upon as some sort of physiological impairment, should be regarded as the pattern arising in a conflict situation in which the general alignment of the individual may be described as aversion." A discussion is given of the relation of impairment and work output to fatigue.—*M. A. Tinker* (Minnesota).

2529. Beach, F. A. Experimental studies of sexual behavior in male mammals. *J. clin. Endocrin.*, 1944, 4, 126-134.—The males of most mammalian species are known to exhibit some sexual responses prior to the time of puberty; yet, in many mammalian species prepubertal practice is not essential to effective copulation when maturity is attained. Among the higher primates, some practice and experience appear to be necessary forerunners of fruitful reproductive behavior. Not one but many sensory stimuli are needed to activate the male to sexual aggression. The complex pattern of stimuli is provided by the receptive female. Although large amounts of cerebral cortex may be removed without seriously impairing the male's motor pattern of copulation, this loss greatly reduces his awareness

of the stimuli which normally arouse "lust." The term "bisexual" is considered more appropriate to describe the occasional feminine behavior manifested by males, than is the term "homosexual."—*C. P. Stone* (N. Y. Psychiat. Inst. & Hosp.).

2530. Birren, J. E. Equilibrium and susceptibility to seasickness. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 7-8.—Abstract.

2531. Bisch, L. E. Your nerves; how to release emotional tensions. New York: Wilfred Funk, 1945. Pp. viii + 310. \$2.50.

2532. Bonch-Osmolovsky, G. A. [The evolutionary significance of thumb oppositeness.] *Gen. Biol., U.S.S.R.*, 1944, 5, No. 1.

2533. Bosma, J. F. Electromyographic studies of innervation patterns of muscles under conditions of voluntary innervation. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 8.—Abstract.

2534. Bozler, E. The action potentials of visceral smooth muscle. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 8.—Abstract.

2535. Brobeck, J. R. Effects of variations in activity, food intake and environmental temperature on weight gain in the albino rat. *Amer. J. Physiol.*, 1945, 143, 1-5.—From studies on 12 rats, it was found that there is a negative correlation between weight change and activity when food intake and environmental temperature are held constant; increasing food intake increased body weight independently of the other experimental factors; weight gain was greater at 86° than at 70° F. "Since the regulation of body temperature, of activity, and of food intake has been shown to be disturbed in animals with hypothalamic lesions . . . the hypothalamus may be the level of the central nervous system responsible for control of energy exchanges."—*T. G. Andrews* (Chicago).

2536. Brooks, C. M., Lockwood, R. A., & Wiggins, M. L. A study of the effect of hypothalamic lesions on the eating habits of rats. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 9.—Abstract.

2537. Broster, L. R. Endocrine man; a study in the surgery of sex. New York: Grune & Stratton, 1945. Pp. xi + 144. \$3.50.—This book, with a foreword by Sir Peter Chalmers Mitchell, is a survey of some of the biological bases of motivation. The theoretical and experimental issues brought out by the British author are applied to problems of endocrinology, biology, and psychology. The topics treated are: cell evolution in relation to instinct, instinct (of growth, self-preservation, and sex), heredity, evolution of species, physiology of the autonomic nervous system, the diencephalon, functional evolution of the endocrine system, the endocrine system, the adrenogenital syndrome, symbiosis and parasitism, and the nature of man. A bibliography of classified titles is appended.—*T. G. Andrews* (Chicago).

2538. Brouha, L., & Savage, B. M. Variability of physiological measurements in normal young men at rest and during muscular work. *Rev. canad. Biol.*, 1945, 4, 131-143.

2539. Brozek, J., Guetzkow, H., & Keys, A. Changes in psychomotor performance in bed-rest.

Fed. Proc. Amer. Soc. exp. Biol., 1945, 4, 10.—Abstract.

2540. Cathcart, E. P. **Fatigue.** *Advanc. Sci.*, 1945, 3, 198-206.—Fatigue is a normal physiological condition which may become pathological under certain conditions. Fatigue is discussed in relation to causes of muscular fatigue, working hours, effort, boredom, measurement, prevention, reduction, rest, and design of tools and workshop. Mental fatigue is considered in relation to boredom, psychological factors, drugs, alcohol, and other stimulants.—G. S. Speer (Central YMCA College).

2541. Dailey, M. E. **Gastritis simulated by the hyperfunctioning stomach.** *Amer. J. digest. Dis.*, 1945, 12, 53-54.—Wolf and Wolff have reported in their book, *Human Gastric Function* (see 18: 2761), that the appearance of the hyperfunctioning stomach, whether caused to overwork by "food, alcohol, histamine, or certain emotionally charged situations," resembles that of "hypertrophic gastritis." Evidence of workers in the field of psychosomatic medicine suggests that emotional instability may cause permanent alteration in the mucosa of the intestinal tract. It remains for the gastroscopists to add their techniques in seeking a better understanding of the physiology of the stomach.—M. Simpson (Wisconsin).

2542. Dawson, P. M., & Hellebrandt, F. A. **The influence of aging in man upon his capacity for physical work and upon his cardio-vascular response to exercise.** *Amer. J. Physiol.*, 1945, 143, 420-427.—The observations reported were made on a single subject who rode a cycle ergometer at 41, 53, 57, 68, and 71 years of age. It was found that working capacity fell off with age, afternoon scores were better than morning scores, the number of days necessary for complete recovery from a ride was greater with increased age, and the circulatory reaction was much the same at all ages studied.—T. G. Andrews (Chicago).

2543. Deutsch, H. **The psychology of women.** Vol. 2. *Motherhood.* New York: Grune & Stratton, 1945. Pp. vi + 498. \$5.00.—This is the second of a two-volume psychoanalytical study of feminine psychology (see 18: 2840). Chapter headings are: social and biologic aspects; motherhood, motherliness, and sexuality; the preliminary phases; the psychology of the sexual act; problems of conception; psychologic prerequisites of pregnancy; pregnancy; delivery; confinement and lactation: first relations with the child; the mother-child relation; unmarried mothers; adoptive mothers; stepmothers; and the climacterium.—M. H. Erickson (Eloise Hospital).

2544. Eliaser, M., Jr. **Vertigo and related conditions—a new therapeutic concept.** *J. Lab. clin. Med.*, 1944, 29, 680-683.—Vertigo, giddiness, light-headedness, and syncope in cerebral arteriosclerosis are caused by anoxia resulting from a decrease in volume of the blood flow. The intracranial arteries are insufficiently elastic to compensate for rapid changes of pressure, and because of the effects of gravity involved in venous return from the brain there may be disparity between inflow and outflow. The venous circulation of the intracranial contents can be changed by a pneumatic tourniquet producing partial jugular occlusion, and for this purpose

Eliaser has devised an adjustable elastic collar to be worn at the base of the neck. It is put on before arising in the morning and is worn continuously until after retiring. A typical successful case is reported, in which the patient's vertigo and mental symptoms disappeared after the collar had been worn. The collar might also be useful in cases of postural hypotension and in prevention of blackout in pilots during rapid descent.—M. E. Morse (Baltimore, Md.).

2545. Enders, R. K. **Induced changes in the breeding habits of foxes.** *Sociometry*, 1945, 8, 53-55.—Although scientific evidence is scanty on the breeding habits of the fox, the following characteristics are noted by breeding experts. Foxes, particularly males, naturally tend toward monogamy. This tendency interferes with the modern attempt of commercial breeders to induce polygamy among superior males, so as to increase the number of offspring with marketable pelts. The female in heat usually accepts any male, but a male must be trained to be polygamous. The training procedure is not simple and is not always completely successful. Estrous in the female apparently can be delayed or hastened by social influences, such as pairing or sex grouping, but the cause is not known.—S. B. Williams (U. S. Naval Reserve).

2546. Gellhorn, E., & Levin, J. **The nature of pupillary dilatation in anoxia.** *Amer. J. Physiol.*, 1945, 143, 282-289.—"Experiments were performed in normal and adrenalectomized cats on the size of the pupil under the influence of anoxia produced by lowering the barometric pressure, and as the result of asphyxia induced by clamping of the trachea. The pupillary size was determined on normal, sympathectomized, and completely denervated pupils. No evidence was found that either adrenalin or sympathetic excitation plays a part in the dilatation of the pupil seen in anoxia and asphyxia. . . . The physiological analysis shows that the dilatation of the pupil consists in a neural and a non-neural component. The former is due to a diminution of the tone of the third nerve center; the latter is probably associated with the formation of acid metabolites."—T. G. Andrews (Chicago).

2547. Hebb, D. O. **The forms and conditions of chimpanzee anger.** *Bull. Canad. psychol. Ass.*, 1945, 5, 32-35.—Emotions in both man and chimpanzee can be identified reliably: anger "is primarily recognized from its relation to a temporal sequence of behavior, not from facial expression or any momentary state of the organism." The 3 main forms of anger response in the chimpanzee can be called rage, temper tantrum, and sulking. Unavailability of a goal and physical restraint are not the only conditions leading to anger; "expectation" must in some form be considered for a complete understanding of the situation, and "perceptual" restraint may be an adequate precipitant for the emotional response. Examples indicate certain common elements in anthropoid reactions.—F. W. Finger (Virginia).

2548. Hoff, P. M., Hoff, E. C., & Fulton, J. F. **A bibliography of aviation medicine: supplement.** Springfield, Ill.: C. C. Thomas, 1944. Pp. xiv + 109. \$2.50.

2549. Householder, A. S. Dynamics of quadrupedal locomotion. *Bull. math. Biophys.*, 1945, 7, 53-57.—O. Fischer's dynamical equations for unbranched systems in two dimensions are extended to branched systems exhibited by a quadruped.—(Courtesy *Bull. math. Biophys.*).
2550. Jekels, L. A bioanalytical contribution to the problem of sleep and wakefulness. *Psychoanal. Quart.*, 1945, 14, 169-189.—Stressing the inadequacy of scientific knowledge of sleep, the author discusses the problem as biological and psychological and suggests the possibilities of further study psychoanalytically, especially in relation to ego relationships and psychodynamics. 17-item bibliography.—M. H. Erickson (Eloise Hospital).
2551. Kety, S. S., & Schmidt, C. F. The determination of cerebral blood flow in man by the use of nitrous oxide in low concentrations. *Amer. J. Physiol.*, 1945, 143, 53-66.—"A method is described applicable to unanesthetized man for the quantitative determination of cerebral blood flow by means of arterial and internal jugular blood concentrations of an inert gas during the first ten minutes of its inhalation in low concentration. Certain necessary assumptions are experimentally tested and results of the method in monkeys are compared with those obtained simultaneously by direct measurement of cerebral blood flow. Sixteen determinations of cerebral blood flow on eleven human subjects by this method have thus far been made and suggest the feasibility of applying this method to clinical investigation."—T. G. Andrews (Chicago).
2552. King, C. G., Bickerman, H. A., Bouvet, W., Harrer, C. J., Oyler, J. R., & Seitz, C. P. Aviation nutrition studies: I. Effects of pre-flight and in-flight meals of varying composition with respect to carbohydrate, protein and fat. *J. Aviat. Med.*, 1945, 16, 69-84.—The effects of various types of diet on the altitude tolerance of 25 subjects are reported. Inanition beyond 4 or 5 hours is least effective, while high carbohydrate meals are most effective in increasing altitude tolerance. Meals with high fat or protein content are intermediate in effectiveness. Impairment due to anoxia is measured by performance on the Minnesota block placement test, size of angioscotoma, pulse rate, respiration rate, and self-ratings of impairment. 38-item bibliography.—A. Chapanis (U. S. Army Air Forces).
2553. Kleitman, N. The effect of motion pictures on body temperature. *Science*, 1945, 101, 507-508.—On the basis of data obtained on many male and female subjects and an analysis of many readings on two female subjects, it appears that attending motion pictures, although looked upon as "relaxation" in the sense of escape from the humdrum existence of reality, is by no means relaxation in the physiological sense. The subject matter of the film evokes an increase rather than a decrease in muscular tension, which shows itself by a highly significant rise in temperature of one-half to one degree F.—F. A. Mole (Connecticut).
2554. Lahy, B. Étude statistique de l'autonomie des temps de reprise par rapport aux temps de réaction. (Statistical study of the autonomy of recovery times in relation to reaction times.) *Année psychol.*, 1942, 40, 193-198.—In considering the speed with which a sequence of reactions can be made (e.g., in typing or in driving a vehicle), simple reaction time is not an adequate and complete measure. There seems to be another important factor involved, an interval of enforced motor inactivity following a particular response, called recovery time. The correlations between the two measures are not significant. Instructions favoring "muscular reaction" or "sensorial reaction" had differential effect on neither average reaction nor average recovery time, but the sensorial yielded a wider dispersion of recovery times.—F. W. Finger (Virginia).
2555. Lampert, H., Hoff, E. C., & Herrington, L. P. Statistically valid tests of drugs and other factors affecting the resistance of mice to acceleration. *Amer. J. Physiol.*, 1945, 143, 262-271.—Using mice in a centrifuge, the authors measured resistance to acceleration in terms of fatal spin number (FSN), the number of increasingly accelerated spins required to cause death. It was found that ergonovine reduces the resistance, pitressin increases resistance if it is initially low, pitressin with atropine extends the pitressin protection, dilantin is without effect, and preliminary tilting has little effect.—T. G. Andrews (Chicago).
2556. Macklin, M. T. New symbols for pedigree charts; suggestions for the improved symbolic representation of data in pedigree charts. *J. Hered.*, 1945, 36, 222-224.
2557. Medoff, H. S., & Bongiovanni, A. M. Blood pressure in rats subjected to audiogenic stimulation. *Amer. J. Physiol.*, 1945, 143, 300-305.—An experimental group of rats, subjected to air blast daily from the time of weaning, and a litter-mate control group were studied. No difference in incidence of hypertension was found in the younger rats, but a significant difference existed in the older group (61% hypertensive among the experimentals and 19% among the controls). The authors take these results as evidence for neurogenic influences in the etiology of hypertension.—T. G. Andrews (Chicago).
2558. Moreira, M., Johnson, R. E., Forbes, A. P., & Consolazio, F. Adrenal cortex and work in the heat. *Amer. J. Physiol.*, 1945, 143, 169-176.—In studying effects of large doses of adrenocortical extract on men marching in moist heat, the authors found the extract to have no greater effect on performance and feeling than water drunk during work. No significant effects were noted on pulse rate, temperature, rate of sweating, pulmonary ventilation, blood pressure, serum content, or urinary sodium and chloride. Urinary potassium was increased as well as sweat potassium, and sweat sodium and chloride were decreased. A discussion of sweat gland activity in work is presented.—T. G. Andrews (Chicago).
2559. O'Connor, W. J., & Verney, E. B. The effect of increased activity of the sympathetic system in the inhibition of water diuresis by emotional stress. *Quart. J. exp. Physiol.*, 1945, 33, 77-90.—Emotional stress was produced by 30-60 sec. of faradic stimulation or by sounding a Klaxon horn. These stimuli were applied during water diuresis in normal dogs and were found to produce two types of inhibition of urine flow: (1) a rapid inhibition

which is abolished by section of the splanchnics and denervation of the kidneys and suprarenal and (2) a slow inhibition due to release of antidiuretic substance from the posterior lobe of the pituitary. Injection of adrenaline just before the application of the faradic stimulus prevented the slow inhibition but did not diminish the inhibition produced by an injection of postpituitary extract. It is concluded that, after an injection of adrenaline, the absence of the slow inhibition in the denervated animal was due to failure of release of the antidiuretic substance (owing to increased sympathetic activity during emotional stress) and not to failure of the released substance to act on the kidney.—*L. C. Mead* (Tufts).

2560. Pacaud, S. Contribution à l'étude des mouvements volontaires. (Contribution to the study of voluntary movements.) *Année psychol.*, 1942, 40, 152-170.—On the basis of extensive investigation, it is concluded that a certain basal relationship exists among an individual's several reaction times for arm movements, whether in the circular horizontal or the circular vertical plane and whether isolated or variously co-ordinated. A particular reaction time, however, is in reality representative only of those movements of the same nature. It is misleading to speak of an individual's general reaction time, nor is it satisfactory to accept the reaction time of one group of movements as a general motor characteristic of the individual. Practically, this means that in vocational selection separate consideration must be given each group of movements required in the work.—*F. W. Finger* (Virginia).

2561. Pace, D. M., & Kimura, K. K. The effect of temperature on respiration in *Paramecium aurelia* and *Paramecium caudatum*. *J. cell. comp. Physiol.*, 1944, 24, 173-183.—Rate of oxygen consumption shows that in both species respiration is proportional to the volumes rather than to the areas. In *P. aurelia*, O_2 consumption depends partly upon the number of individuals per unit volume. The greater the number, the lower the rate of consumption per organism (with definite limits). The respiratory quotients in the two species vary directly with the temperature. It is indicated that *Paramecium* has a greater carbohydrate metabolism at high temperatures (30° - 35° C.) than at low temperatures (15° - 20° C.).—*F. A. Beach* (American Museum of Natural History).

2562. Perkins, J. F., Jr. The rôle of the proprioceptors in shivering. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 55.—Abstract.

2563. Philip, B. R., & Lyttle, J. W. The relation between reaction times and duplication times for short intervals. *Bull. Canad. psychol. Ass.*, 1945, 5, 40-42.—Reaction time to visual stimuli was determined for 100 randomly selected high school boys. Those subjects in the highest and in the lowest quartiles were tested for their ability to reproduce visually-indicated time intervals varying between approximately 0.73 and 1.7 sec. No significant difference in duplication time was found between the two groups, nor was there a significant degree of correlation between the two measured variables.—*F. W. Finger* (Virginia).

2564. Platt, C. S., & Dare, R. S. The homing instinct in pigeons. *Science*, 1945, 101, 439-440.—Untrained pigeons failed to return home when released at a point 80 miles distant; only 2 of a group of 8 which were trained to return from a distance of 40 miles reached home when released at the 80-mile point. Six of a group of 9 returned after a training period during which they were given several trial flights as a group over the 80-mile course. In all test flights the birds flew alone. It is apparent that untrained pigeons do not possess an instinct which automatically brings them home when released from a point 80 miles distant.—*F. A. Mote* (Connecticut).

2565. Preston, M. I. Late behavioral aspects found in cases of prenatal, natal and postnatal anoxia. *J. Pediat.*, 1945, 26, 353-356.—Data are given on 132 cases in which deficient oxygen supply was found, in most cases resulting from prenatal or natal damage to the respiratory mechanisms in the medulla. Two forms of sequelae were noted, roughly describable as extreme hyperactivity and extreme lethargy. Boys predominated in both groups. Of the entire number, 74% had approximately normal intelligence according to the Stanford-Binet scale, but their lack of behavioral control nullified its use; 26% were classed as mentally deficient. Epilepsy was present in 28%. A fairly detailed account of the typical course of behavioral changes from birth to adolescence is presented for the group as a whole together with 4 individual case histories. The importance of making parents and teachers appreciate the nature of the child's condition is stressed.—*F. L. Goodenough* (Minnesota).

2566. Reik, T. Psychology of sex relations. New York: Farrar & Rinehart, 1945. Pp. 243. \$3.00.—The author presents his views and understandings of the psychology of sex relations, and he offers his refutations and denials of accepted psychoanalytical concepts.—*M. H. Erickson* (Eloise Hospital).

2567. Ryan, A. H., Nice, L. B., & Cholden, L. S. Palmar skin resistance (P.S.R.) as a measurement of occupational fatigue. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 62.—Abstract.

2568. Sawyer, C. H. Nature of the early somatic movements in *Fundulus heteroclitus*. *J. cell. comp. Physiol.*, 1944, 24, 71-84.—The earliest spontaneous somatic movements in teleost embryos have been interpreted as neurogenic by some students and myogenic by others. By correlating cholinesterase content of *Fundulus* embryos with early capacities for motility, it was established that the first movements are myogenic. Shortly later in development the enzyme level rises high enough to potentiate neurogenic responses; and at successive developmental stages, increased concentrations of ChE support truly reflexogenic activity.—*F. A. Beach* (American Museum of Natural History).

2569. Silverman, L., Lee, R. C., & Drinker, C. K. A new method for studying breathing, with observations upon normal and abnormal subjects. *J. clin. Invest.*, 1944, 23, 907-913.—The authors describe a new pneumotachographic device for recording the velocity of air movement during expiration and inspiration. The inspiratory and expiratory air currents cause deflection of fine wires, deflections which are recorded photographically by a moving

paper camera. The total minute volume and the instantaneous air flow can be obtained from the records. The absolute objectivity of the method and the ease with which the subject is kept unconscious of his moment of participation in the test may be of use in psychological and psychiatric studies, as well as for the examination of children and draftees.—*M. E. Morse* (Baltimore, Md.).

2570. Smith, J. E. The role of the nervous system in some activities of starfishes. *Biol. Rev.*, 1945, 20, 29-43.—A systematic description of the peripheral and central nervous systems of echinoderms is related to the behavioral and physiological studies of starfish movements. The co-ordination of starfish movement is discussed in detail.—*L. H. Beck* (Brown).

2571. Sperry, R. W. Fixed persistence in the rat of spinal reflex patterns rendered extremely maladaptive by cross union of sensory nerves. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 67.—Abstract. (See 17: 4046.)

2572. Spiegel, E. A., & Scala, N. P. Influence of retinal impulses upon vestibulo-ocular reflex arc. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 67.—Abstract.

2573. Stier, P. L. Fear. *Contact, Pensacola*, 1945, 4, 371-381.—This general discussion of fear covers the following topics: the importance and prevalence of fear, its influence in daily life and conduct, the biological nature of fear, and its prevention and treatment.—*A. Chapanis* (U. S. Army Air Forces).

2574. Taylor, H. L., Brozek, J., Henschel, A., Mickelsen, O., & Keys, A. The effect of successive fasts on the ability of men to withstand fasting during hard work. *Amer. J. Physiol.*, 1945, 143, 148-155.—Metabolic, physiological, and psychomotor measurements were carried out on 4 men who performed hard work under controlled conditions during 5 successive 2½-day fasts which were separated by 5 to 6-week intervals. The data are presented for the first and fifth fasts. The total caloric deficit was of the order of 10,000 calories. All the men were able to maintain the blood sugar in work at a significantly higher level in the fifth fast than in the first. Motor speed and co-ordination suffered less during the fifth fast; also reaction time and pattern tracing showed a statistically significant improvement.—*T. G. Andrews* (Chicago).

2575. Tegner, W. S. Tests of physical efficiency and fitness. *Brit. J. phys. Med.*, 1945, 8, 37-40.

2576. Tuttle, W. W. A study of the work capacity of college women. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 73.—Abstract.

2577. Woodward, A. E., & Condrin, J. M. Physiological studies on hibernation in the chipmunk. *Physiol. Zool.*, 1945, 18, 162-167.

[See also abstracts 2422, 2446, 2448, 2449, 2450, 2451, 2452, 2453, 2457, 2460, 2467, 2471, 2473, 2480, 2481, 2483, 2484, 2515, 2591, 2593, 2595, 2615, 2618, 2626, 2621, 2633, 2635, 2672, 2690, 2713, 2717, 2745, 2759, 2762, 2777, 2782, 2787, 2788, 2796, 2797, 2799.]

PSYCHOANALYSIS, DREAMS, HYPNOSIS

2578. Bergler, E. Thirty some years after Ferenczi's "Stages in the Development of the Sense of Reality." *Psychoanal. Rev.*, 1945, 32, 125-145.—Ferenczi's scheme outlining the development of childish megalomania is incomplete, since it does not cover all analytic knowledge regarding the use of magic. It is probably more advantageous to describe the various techniques used to support the fantasy of omnipotence than to describe different developmental phases. Various techniques now known are discussed.—*L. B. Heathers* (Smith).

2579. Hampton, P. J. A demonstration of hypnosis. *J. abnorm. soc. Psychol.*, 1945, 40, 249-254.—Many psychology students have no clear concept of how hypnosis is induced. For illustration there is here presented a verbatim report of a 55-minute demonstration of hypnotism in an abnormal psychology class. Six subjects were used to demonstrate anesthesia, rigidity, regression to childhood, and posthypnotic suggestion. Such demonstrations are valuable and effective teaching aids to give students an idea of the relations between suggestibility, hysteria, amnesia, and varieties of physiological depression.—*C. M. Harsh* (Nebraska).

2580. Hoffman, F. J. Freudianism and the literary mind. Baton Rouge, La.: Louisiana State University Press, 1945. Pp. viii + 346. \$4.00.—This book of 11 chapters constitutes a survey of the contributions of Freudianism to literature. Chapter 1 is a selective summary of those aspects of Freudian theory which have had the greatest influence upon literature. The next two chapters offer a selective summary of the varied favorable and unfavorable responses and reactions to psychoanalysis. Chapter 4 evaluates the actual extent of the influence of psychoanalysis upon literature and summarizes the principal aspects of psychoanalytic teachings affording literary exploitation. The next six chapters deal specifically with psychoanalytic influence upon literature as disclosed in the writings of James Joyce, D. H. Lawrence, F. Kafka, T. Mann, S. Anderson, W. Frank, C. Aiken, D. Thomas, L. Lewisohn, H. Miller, and others. In the final chapter the author deals briefly with the precursors of Freud whose influence in shaping thought in the 19th century set the stage for a response to Freudianism. 12-page selected bibliography and index.—*M. H. Erickson* (Eloise Hospital).

2581. Jimenez de Asua, L. Psicoanalisis y delinquencia. (Psychoanalysis and delinquency.) *An. Univ. S. Domingo*, 1943, 7, 80-100.

2582. Lewinsky, H. On some aspects of masochism. *Int. J. Psycho-Anal.*, 1944, 25, 150-155.—The author offers the following conclusions: the characteristics of masochism are only partly accounted for by its relation to sadism; masochism can be explained apart from the death instinct; the concept of passivity is vague and misleading; special inability to tolerate pain or frustration leads to a pretence of capacity for suffering and a libidinalization of the reality principle; the masochist craves strong feelings possibly as reassurance against death fears; and, apart from neurotic gains in superego relationships, the masochistic object-relationship allows the subject

to receive without giving and to experience strongly without considering another's feelings.—*M. H. Erickson* (Eloise Hospital).

2583. **Mittelman, B.** Analysis of patients with acute symptoms. *Psychoanal. Rev.*, 1945, 32, 181-196.—Some analytic patients present a picture of acute emotional upset in both their analytic sessions and daily life. If this acute period is handled effectively, the analysis is frequently successful. It is suggested that, during this period, transference relations be interpreted in terms of current attitudes and that the patient be allowed to sit facing the analyst to allay his anxiety. The patient should be encouraged to analyze the situations which produce his attacks instead of concentrating his attention on his symptoms. These patients frequently demand omnipotent help, overevaluate the role of the analyst, and have feelings of humiliation, rivalry, and resentment.—*L. B. Heathers* (Smith).

2584. **Money-Kyrle, R. E.** Some aspects of political ethics from the psycho-analytical point of view. *Int. J. Psycho-Anal.*, 1944, 25, 166-171.—The author presents a reformulation of a previous article (see 19: 1935).—*M. H. Erickson* (Eloise Hospital).

2585. **Montani, A.** Psychoanalysis of music. *Psychoanal. Rev.*, 1945, 32, 225-227.—With the minor modes, containing the diminished third tone, are associated the feelings of suffering, chastisement, and pain which characterize reactions to the castration complex.—*L. B. Heathers* (Smith).

2586. **Mosse, E. P.** A vacation experiment with a group of psychoanalytic patients. *Psychoanal. Rev.*, 1945, 32, 219-224.—Six analytic patients, with strong depressive tendencies and conditions borderline between psychosis and neurosis, spent a month on a farm with their analyst and his family. The wife and daughter of the analyst lived freely with the patients, but the analyst restricted his activities. During this period the patients were given electroshock treatment without interrupting their analytic sessions. Finger painting and word association games were also used. The author concludes that the analytic process was furthered by this situation, most of the patients improving in their reality testing functions.—*L. B. Heathers* (Smith).

2587. **Reich, W.** Character analysis; principles and technique for psychoanalysts in practice and in training. (2nd ed.) (Trans. by T. P. Wolfe.) New York: Orgone Institute Press, 1945. Pp. xxii + 328. \$4.50.

2588. **Sperling, O.** On appersonation. *Int. J. Psycho-Anal.*, 1944, 25, 128-132.—A systematic discussion is offered of the differentiation between appersonation and identification with illustrative clinical material cited. "Appersonation stands midway between ego-cathexis and object-cathexis. Perhaps in conclusion we can formulate the deeper meaning of appersonation as follows: through appersonation, the ego defends itself against hypercathexis with narcissistic libido."—*M. H. Erickson* (Eloise Hospital).

2589. **Sterba, R.** The formative activity of the analyst. *Int. J. Psycho-Anal.*, 1944, 25, 146-150.—The obligations of the analyst to the analysand do

not end with the preparation for receiving interpretations and the presentation of the necessary obligations, namely, that of aiding the analysand to overcome his mental inertia and established patterns of behavior and to assist him in utilizing constructively and progressively his newly acquired insights. This reorientation of the patient to his new understandings derived from interpretations constitutes the final therapeutic goal, and it requires direction and formative activity on the part of the analyst. Discussion of this formative activity as a significant part of analysis follows.—*M. H. Erickson* (Eloise Hospital).

2590. **Wortis, J.** Freudianism and the psychoanalytic tradition. *Amer. J. Psychiat.*, 1945, 101, 814-820.—The author enumerates several of the contributions which he feels that psychoanalysis has made as a scientific movement. He then calls attention to a number of psychoanalytic weaknesses as he sees them. His final view is that psychoanalysis, after having evaded the issues for a time, must recognize the importance of physiology and sociology in the understanding and treatment of the individual.—*R. D. Weitz* (Jersey City, N. J.).

[See also abstracts 2442, 2468, 2520, 2543, 2550, 2566, 2600, 2615, 2640, 2644, 2785, 2789, 2790.]

FUNCTIONAL DISORDERS

2591. **Adler, A.** Post-traumatic neuroses in war and peace. *Indiv. Psychol. Bull.*, 1945, 4, 75-78.—Posttraumatic neuroses are divided into fright and conflict neuroses. Fright neuroses develop under particularly harrowing circumstances, such as the campaign on Guadalcanal or the retreat at Dunkerque. Conflict neuroses may develop after the slightest injury and under circumstances which are in no way frightening. In the conflict neuroses the "mere anticipation of an injury can bring about the same results as the injury itself." The difference between the posttraumatic and other types of neuroses seems to consist primarily of the fact that the catastrophic origin of the posttraumatic neuroses is relatively easy to trace. "In other types of neuroses the fundamental set-up and lack of positive interest in society is also present, but the development is often not so acute and may represent the result of an accumulation of problems."—*S. B. Sarason* (Southbury Training School, Conn.).

2592. **Bassett, D. M.** New Jersey institutions for the mentally deficient; their contribution and place in the war effort. *Amer. J. ment. Def.*, 1944, 49, 75-79.—From only one of the five institutions surveyed have any boys entered the Armed Forces. Reports indicate that 40 of these are surely making good, 45 are probably making good, 11 are making a doubtful adjustment, 8 are known failures. Motivation furnished by the war effort has led to a greater contribution in community projects. Continuation of some of the training initiated by the war effort is recommended.—*S. Whiteside* (Cincinnati Public Schools).

2593. **Beckman, W. G.** A further study on muscular cramps and the hyperventilation syndrome in flyers in the ETO. *J. Aviat. Med.*, 1945, 16, 101-

103.—The author concludes that fear, anxiety, and nervousness are important determinants of the hyperventilation syndrome.—*A. Chapanis* (U. S. Army Air Forces).

2594. *Binger, C.* The doctor's job. New York: Norton, 1945. Pp. 243. \$3.00.—Numerous problems of everyday occurrence in the doctor's office are presented which are of consuming interest, fear, or concern to the layman, in terms comprehensible to the lay reader. Typical chapter headings are: specialties and specialists, medicine and psychoanalysis, stomach ulcer, high blood pressure, the prevention of illness, and socialized medicine.—*M. H. Erickson* (Eloise Hospital).

2595. *Bixby, E. M., & Benda, C. E.* Androgens in mongoloid deficiency. *Amer. J. ment. Def.*, 1944, 49, 138-148.—The determination of 17-ketosteroids (androgens) in mongolism is studied in order to obtain further information about the functions of the adrenals and gonads in this condition. The results of 23 determinations of the androgen excretion in various patients of different ages are presented according to the subjects' age, height, weight, and IQ. The technical procedure is discussed in detail. "The results indicate that adrenal cortical function is normal, but the second source of androgen excretion in males, the male gonad, is lacking in mongolism."—*S. Whiteside* (Cincinnati Public Schools).

2596. *Caveny, E. L.* Aviation psychiatry. *Contact, Pensacola*, 1945, 4, 382-389.—The study of aviation psychiatry prepares the flight surgeon for two important duties: (1) the selection of personnel for aviation and (2) the care and maintenance of flying personnel. Some basic concepts and principles of aviation psychiatry are discussed.—*A. Chapanis* (U. S. Army Air Forces).

2597. *Cobb, S.* Technic of interviewing a patient with psychosomatic disorder. *Med. Clin. N. Amer.*, 1944, 28, 1210-1216.—In the interview the patient is made to lead the conversation, and direct questions are avoided. The hysterical patient usually plunges directly into his recital; the obsessive quibbles and beats around the bush. If the patient wanders off, he is brought back by the physician's repetition of an important phrase used by the patient. Note taking is limited, but during the interview social and medical facts are arranged on a Meyer life chart. "Present illness" thus merges into "past history," and significant relationships appear. Catharsis in itself brings relief. Insight is very effective when attained by the patient himself but is of little value when pointed out to him. Suggestion, used consciously or unconsciously, is always a factor. Finally the patient must be weaned from dependence on others or must be fitted into an environment where there is normal mutual dependence on others who understand him. A table of pathological lesions or functions due to disruption of normal physiological functions by emotions is appended.—*M. E. Morse* (Baltimore, Md.).

2598. *Davis, J. E.* An introduction to the problems of rehabilitation. *Ment. Hyg., N. Y.*, 1945, 29, 217-230.—Rehabilitation is more psychological and spiritual than economic or monetary. Programs should aim to restore human dignity in productive capacity. Implications of being unwanted by

society because of some handicap should be removed. The emotional aspects of mental disease must be understood.—*W. L. Wilkins* (U. S. Naval Reserve).

2599. *Edlin, J. V., Johnson, R. H., Hietko, P., & Heilbrunn, G.* The conditioned aversion treatment in chronic alcoholism (preliminary report of 100 cases). *Amer. J. Psychiat.*, 1945, 101, 806-809.—Of 100 alcoholics treated by conditioned aversion (establishing a reflex aversion to the sight, smell, taste, and thought of alcoholic beverages by means of emesis), 52% abstained from drink for at least a 3-month interval. Ninety-one of the patients were hospitalized during treatment, and 9 were treated as private cases in their homes. Of the hospital cases, 15% remained abstinent for 5 to 15 months, whereas 55% of the private cases remained abstinent over the same period. The authors attribute this difference to the fact that the private patients, as a group, were generally more responsible. This treatment should be used as an aid to psychotherapy and not as a method in itself.—*R. D. Weitz* (Jersey City, N. J.).

2600. *Fenichel, O.* Neurotic acting out. *Psychoanal. Rev.*, 1945, 32, 197-206.—The relation of neurotic acting out to transference, displacement, and symptom formation is discussed. Types of acting out within and without analysis are described.—*L. B. Heathers* (Smith).

2601. *Freedman, H. L.* The mental-hygiene-unit approach to reconditioning neuropsychiatric casualties. *Ment. Hyg., N. Y.*, 1945, 29, 269-302.—The unit consists of the following members: a psychiatrist who administers, supervises, and directs therapy procedures; a psychologist, who gives tests helpful to the psychiatrist; a Red Cross social worker, who makes community contacts; and an enlisted social worker, who works with the different groups. These groups are of three types: orientation, with separate groups for men with overseas experience; interest and activity groups, which are kept small and informal; and discussion groups, which average 4½ hours of group work per week. Psychiatric casualties are recommended for noncombatant duty within the continental limits of the U. S. A.; 70.5% of the cases have been sent to such limited duty, with 88% reported as making satisfactory adjustment. The NP casualties with overseas experience have a better prognosis for duty than the men without such experience; only 24% of the former have been discharged.—*W. L. Wilkins* (U. S. Naval Reserve).

2602. *Galigarcia, M.* Causas de las enfermedades mentales; higiene mental y nuevos tratamientos. (Causes of mental illnesses; mental hygiene and new treatments.) *An. Univ. S. Domingo*, 1943, 7, 101-116.

2603. *Goldstein, K.* Special institutions for rehabilitation of soldiers with brain injuries. *Occup. Ther.*, 1944, 23, 115-118.—Inasmuch as soldiers with brain injuries are much more incapacitated in their personal and vocational life than are men with other body wounds, the author urges the establishment of special institutions headed by physicians trained in rehabilitation techniques and assisted by trained psychologists, teachers, and social workers, for the care of such brain-injured men.—*J. E. Zerga* (Walt Disney Productions).

2604. Greenwood, E. B., Snider, H. L., & Senti, M. M. A psychological testing program in an army station hospital. *Milit. Surg.*, 1944, 95, 489-495.—The psychological testing program at Camp Carson, Colorado, includes not only neuropsychiatric patients but also illiterates, men speaking English with difficulty, and misfits referred in connection with reassignment, reclassification, or discharge. The tests were given, under supervision, by 2 enlisted men, college graduates and teachers by profession, and 3 members of a medical unit in training. The test used basically was the Wechsler scale. The Kent emergency test correlates sufficiently well with it to be used as a quick check if the Wechsler is not practicable. The Rorschach test is being used increasingly, and the Thematic Apperception test is under consideration. The Shipley-Hartford Retreat scale has been helpful in some cases of post-traumatic cerebral syndrome, but it is used more extensively in hospitals receiving front-line casualties. The Minnesota personality inventory is not the type of test needed in neuropsychiatric wards.—M. E. Morse (Baltimore, Md.).
2605. Halliday, J. L. The incidence of psychosomatic affections in Britain. *Psychosom. Med.*, 1945, 7, 135-146.—Using three sets of statistical data, the author surveys the incidence of some of the psychosomatic disorders in Britain during this century and prior to the outbreak of World War II. Two main groups were discovered, those with a falling incidence and those with a rising incidence. In the quarter century 1909-13 to 1934-38, a period corresponding to the reign of George V, there was an upward trend for both sexes in anxiety states, exophthalmic goiter, and diabetes. In peptic ulcer and possibly the hypertensive disorders, only males revealed an upward trend, while the rise was greater in exophthalmic goiter for males and in diabetes for females. Diseases preponderantly found in females during the late 19th century increased during the 20th century in males, with a reversal of this proportion in diabetes and suicide which preponderated for males in the 19th century. "This finding suggests *inter alia* that the 'personality type' of males was becoming more feminine than that of males more masculine."—P. S. de Q. Cabot (United Drug, Inc.).
2606. Hardcastle, D. N. Some notes on traumatic neurosis and allied conditions. *Int. J. Psycho-Anal.*, 1944, 25, 132-142.—The author discusses his experience with traumatic neuroses and allied conditions. He points out that the original definition of psychic trauma as an experience which, if completed in the manner as understood by the person, meant death to him, is inadequate; psychic trauma may also be the outcome of (a) believing oneself to be in danger or witnessing some catastrophe, such as bombing or the death of associates, or (b) participating in destructive activities directed against others. Six clinical case histories are cited and discussed for their significations bearing upon etiology, clinical development, and therapy.—M. H. Erickson (Eloise Hospital).
2607. Harms, E. The arts as applied psychotherapy. *Occup. Ther.*, 1944, 23, 51-61.—The relationship of the arts to abnormal psychology and therapy is reviewed as follows: as a diagnostic aid to psychopathology, as an aid in psychotherapy, and as a means in psychotherapy. 35-item bibliography.—G. S. Speer (Central YMCA College).
2608. Harrower-Erickson, M. R. The patient and his personality. *McGill med. J.*, 1941, 11, No. 1, 25-40.—The Rorschach method of personality evaluation is discussed, together with its uses in clinical medicine.—K. S. Bernhardt (Toronto).
2609. Harrower-Erickson, M. R. Clinical use of psychological tests. *McGill med. J.*, 1941, 11, No. 2, 105-109.—Two uses for tests in the clinical setting are suggested—to obtain information regarding the mental components involved in abnormal behavior and to aid with diagnosis. For the first a qualitative analysis is suggested, and for the second the Rorschach test is recommended.—K. S. Bernhardt (Toronto).
2610. Henrikson, E. H. A semantic study of identification of speech defects. *J. Speech Disorders*, 1945, 10, 169-172.—Twenty-six students were asked if they recognized each of 18 terms representing speech defects; then they were asked to define each. Finally they were given the opportunity to identify actual examples of the 18 defects. In general, claimed recognition of the terms tended to be associated with correct definition and actual recognition of the defect, although there was a great deal of disagreement among the 3 measures.—F. W. Finger (Virginia).
2611. Heyman, D. Manifestations of psychoneurosis in Negroes. *Ment. Hyg., N. Y.*, 1945, 29, 231-235.—Psychiatric problems among Negroes are essentially the same as among whites, but therapeutic difficulties are enhanced by inarticulateness among many Negroes, by the outer subservience of southern Negroes which effectively prevents a real therapeutic relationship, and by personal insecurity brought about by economic conditions.—W. L. Wilkins (U. S. Naval Reserve).
2612. Jensen, A. V. Identification of gun-shyness with experimental neurosis in dogs. *Fed. Proc. Amer. Soc. exp. Biol.*, 1945, 4, 37.—Abstract.
2613. Johnson, D. M. The "phantom anesthetist" of Mattoon: a field study of mass hysteria. *J. abnorm. soc. Psychol.*, 1945, 40, 175-186.—The writer analyzes the records of an example of mass hysteria in a small Illinois town. One woman's hysterical report of being gassed and paralyzed at night led to heightened suggestibility of many others. Most victims were women of slightly below average social status. A surge of telephone calls to the police, reporting prowlers and 'gassers,' was followed by an abnormal decrease in calls to the police after the attacks were judged to be imaginary.—C. M. Harsh (Nebraska).
2614. Kennard, M. A., Bueding, E., & Wortis, S. B. Some biochemical and electroencephalographic changes in delirium tremens. *Quart. J. Stud. Alcohol*, 1945, 6, 4-14.—Wechsler-Bellevue, Goodenough, and Rorschach appraisals of 12 patients with delirium tremens showed emotional and social instability in all. EEG's of 47 showed a relatively high incidence of fast 16-30/sec. low voltage activity, the per cent decreasing with the recovery of the

patient. Records of 12 alcoholic controls (acute, deteriorated, or with polyneuropathy, but without delirium tremens) did not show the increased fast activity and low alpha index seen in the cases with delirium tremens.—*W. L. Wilkins* (U. S. Naval Reserve).

2615. Kubie, L. S., & Margolin, S. The therapeutic role of drugs in the process of repression, dissociation and synthesis. *Psychosom. Med.*, 1945, 7, 147-151.—The use of drugs in facilitating recovery of repressed and dissociated ideas is emphasized as a useful adjuvant in dynamic psychotherapy to circumvent resistances. Examples of the behavior of patients undergoing psychotherapeutic treatment aided by drugs, such as sodium pentothal, are given to illustrate the overt manifestation of transfer relationships, the automatic return to strong centers of early conflicts, and the direct recovery of early memories.—*P. S. de Q. Cabot* (United Drug, Inc.).

2616. Lentino, P. Contribuição ao estudo de alguns mecanismos esquizofrênicos. (Contribution to the study of certain schizophrenic mechanisms.) *Rev. paul. Med.*, 1943, 22, 338-343.

2617. Luxenburger, H. Schizophrenie und manisch-depressives Irresein. (Schizophrenia and manic-depressive psychoses.) *Fortschr. Erbpäth. Rassenhyg.*, 1940, 4, 239-259.

2618. Penrose, L. S. Psychotic profiles and sex profiles shown by a test battery. *Amer. J. Psychiat.*, 1945, 101, 810-813.—Standard scores on 8 subtests were compared for normal and psychotic male and female subjects. The differences found between the schizophrenic and the affective profiles resembled the differences between the male and female profiles. The author presents the hypothesis that quantitative deviations from sex polarity are quite common in men and that these deviations account for the personality differences which are reflected in the reaction type if the subject develops a psychosis.—*R. D. Weiss* (Jersey City, N. J.).

2619. Penrose, L. S. Discrimination between normal and psychotic subjects by Revised Examination M. *Bull. Canad. psychol. Ass.*, 1945, 5, 37-40.—Comparison of scores on the Revised Examination M (an intelligence test used by the Canadian armed forces) made by psychotics and by a normal army group reveals the existence of a psychotic profile. With statistical weighting of subtest scores, normal males average about 700 ± 220 points, and mentally ill males average less than 300 points.—*F. W. Finger* (Virginia).

2620. Quinn, J. P. The client with severe personality disturbances. *Family*, 1944, 25, 88-95.—Three cases are reported, in each of which the personality disturbances of a mother had a disrupting effect upon home and family.—*F. L. Goodenough* (Minnesota).

2621. Rosenzweig, S., & Clark, R. A. The personality of a psychotic ex-soldier. *J. abnorm. soc. Psychol.*, 1945, 40, 195-204.—The case study of a schizoid ex-soldier is presented to illustrate the integration of interview data and test findings. Five of the tests emphasize the projective methods of personality study. Responses during the tests are interpreted, as are the psychiatric findings that

reveal the course of the maladjustment.—*C. M. Harsh* (Nebraska).

2622. Ruesch, J. Psychophysiological relations in cases with head injuries. *Psychosom. Med.*, 1945, 7, 158-168.—To determine similarities and differences of posttraumatic conditions with psychoneuroses and with brain disease, 132 patients (of whom 34 were ambulatory cases) were studied with respect to respiratory functions under basal conditions and during work, muscular tension, and heart rate during endurance to pain and fatigue. The data were correlated with results from tests of intelligence and personality. Fifteen normal controls were subjected to some of these tests. "The post-traumatic syndromes without signs of brain damage resembled the psychoneuroses more than post-traumatic cases with evidence of brain lesions. The cases with recent head injuries were in many respects the most normal of all the patients studied. . . . The higher the basal ventilation volume, the smaller was the subsequent increase during work." Patients of average or subnormal intelligence used more oxygen than the more intelligent ones. An antagonism seemed to exist between presence of brain damage and psychoneuroses; the more marked the one component, the less obvious the other became.—*P. S. de Q. Cabot* (United Drug, Inc.).

2623. Sandler, S. A. Somnambulism in the armed forces. *Ment. Hyg., N. Y.*, 1945, 29, 236-247.—Twenty-two cases are reported and show that the personality structure of the somnambulist is that of the overprotected adult who is excessively dependent upon father and older brothers, who participates in a conflict between superego and id, represented by patriotic and social ideals opposed to pleasure and self-preservation, and who has been arrested on a homo-erotic level of psychosexual development. Somnambulism is a form of neurosis. Psychotherapeutic methods, expedited by sodium amytal which permits access to repressed material, reduced the incidence, but in some cases the symptoms were replaced by anxiety and hypochondriacal or hysterical symptoms.—*W. L. Wilkins* (U. S. Naval Reserve).

2624. Shakow, D., Rodnick, E. H., & Lebeaux, T. A psychological study of a schizophrenic: exemplification of a method. *J. abnorm. soc. Psychol.*, 1945, 40, 154-174.—In diagnosing and treating neuropsychiatric casualties from the armed forces, patients were examined by a full clinical staff. The psychological battery included mental tests, Rorschach, association, aspiration level, thematic apperception under normal and 'stress' conditions, pursuitmeter, and picture-frustration tests. No single test or interview method was adequate for all patients. Thus several examiners of both sexes worked with each patient, giving a variety of tests which revealed both formal abilities and problems and also hidden or contextual information. The contrast of responses under normal conditions and under stress was very useful. A case study of a schizophrenic man illustrates the use of the test data to form an integrated picture of personality.—*C. M. Harsh* (Nebraska).

2625. Slavson, S. R. Types of relationship and their application to psychotherapy. *Amer. J. Orthopsychiat.*, 1945, 15, 267-277.—The author describes various kinds of relationships observed among

people in everyday life and among clients in individual and group therapy. These include domination-submission, parasitic, symbiotic, anaclitic, supportive, transference, equipodal, unilateral, bilateral, and multilateral types. In the discussion following the paper, L. G. Lowrey suggests that one mechanism not specifically mentioned by the author is that of identification.—R. E. Perl (New York City).

2626. Solomon, P. **Narcolepsy in negroes.** *Dis. nerv. Syst.*, 1945, 6, 179-183.—Neuropsychiatric screening of negro recruits detected narcolepsy in 19 of 10,000 men, an incidence 60 times that found in white recruits. Eighteen of these were from the South, 12 from the deep South. Three had a family history of narcolepsy, one case seemed organic, two probably organic, and 16 appeared to be "idiopathic" in etiology. Only two cases showed cataplexy; 16 of the cases showed narcoleptic symptoms in early childhood. "A study of the data suggests that the Southern negro may have a constitutional predisposition toward the development of narcolepsy, and that this predisposition may be related in some negroes to a faulty resistance toward sleep or increased readiness for sleep."—C. E. Henry (U. S. Naval Reserve).

2627. Somberg, H. M., & Ingham, H. V. **A simple aphasia study.** *N. Y. St. J. Med.*, 1944, 44, 1126-1127.—A chart is presented which affords a simple standard form for recording the responses of an aphasic patient. It is divided into 2 fields: perception (hearing, vision, and touch) and motor functions. Each sensory modality is tested on the 3 levels necessary for complete interpretation of the environment: perception, cognizance, and conation. Motor aphasia is tested through the pathways of speech and writing, following verbal and written examples, and through carrying out a definite motor pattern (verbal instructions, mimicking). A musical and a mathematical test are added.—M. E. Morse (Baltimore, Md.).

2628. Tarachow, S. **A psychosomatic theory based on the concepts of mastery and resolution of tension.** *Psychoanal. Rev.*, 1945, 32, 163-180.—Psychoneurotics are those who have failed to achieve realistically satisfactory outlets for their tension needs. This tension may produce an overmobilization of energies as in anxiety or an inhibition of action. "The psychic representation of the tension constitutes a psychoneurosis; the somatic representation, a physioneurosis. Case studies are presented which demonstrate that psychic inhibition or excitation brings with it somatic inhibition or excitation, respectively."—L. B. Heathers (Smith).

2629. Tredgold, R. F. **The importance of failure of concentration in the acute war neurosis syndrome.** *J. R. Army med. Cps*, 1944, 82, 177-182.—Forty cases in which failure of concentration was a major complaint were observed; all had a history of severe bombing and of some degree of exhaustion. Examples are given of the three types of conditions into which the 40 cases were classed: (1) residual cases, in which failure of concentration is the principal symptom; (2) insidious cases, which showed gradual increase in symptoms; and (3) depressive cases. In all cases the failure of concentration "may be described as an early tiring of attention." Observa-

tions concerning etiology and treatment are made.—C. N. Cofer (U. S. Naval Reserve).

2630. Tronchin-James, —. **Sociological aspects of psychoneurosis.** *Practitioner*, 1945, 154, 307-311.—General observations were made on 350 consecutive male Service patients admitted to a Neurosis Center. In wartime the stigma attached to neurotics is exaggerated because, although apparently healthy, they are temporarily of no value to the community and are considered malingerers; also, other persons are more than ever prone to project their own weaknesses on them.—M. E. Morse (Baltimore, Md.).

2631. Wagner, M. W. **Mental hazards in old age.** *Family*, 1944, 25, 132-137.—Few young people who fail to learn to face the realities of life make a happy adjustment to the great realities of the process of aging. That much can be done to help old persons find satisfaction during their declining years is evidenced by the work of Lillian Martin in her clinic for older people.—F. L. Goodenough (Minnesota).

2632. Will, N. **The personality development of a stuttering boy.** *Etc. Rev. gen. Semant.*, 1944, 1, 165-173.—See 18: 3524.—R. B. Ammons (Iowa).

2633. Yannet, H., & Lieberman, R. **The Rh factor in the etiology of mental deficiency.** *Amer. J. ment Def.*, 1944, 49, 133-137.—Approximately 100 mothers of idiot and imbecile inmates of the Southbury Training School were studied for isoimmunization by the Rh factor. About half were mothers of children in whom the diagnosis of specific etiological categories could be made. These constituted the control group. The incidence of Rh negative mothers of undifferentiated idiots and imbeciles was significantly higher than in the control group or than would be expected in a random selection. "Although the series is small, this preliminary study does indicate the possibilities that isoimmunization by the Rh factor must be considered as a probable etiological mechanism in certain of the mentally deficient."—S. Whiteside (Cincinnati Public Schools).

[See also abstracts 2425, 2442, 2468, 2469, 2517, 2519, 2522, 2541, 2640, 2641, 2645, 2648, 2649, 2661, 2681, 2682, 2701, 2710, 2722, 2729, 2737, 2738, 2774, 2778, 2785, 2801.]

PERSONALITY AND CHARACTER

2634. Abramson, H. A. **The Minnesota Personality Test in relation to selection of specialized military personnel.** *Psychosom. Med.*, 1945, 7, 178-184.—"The Minnesota Personality Test was studied to determine its possible value in the selection of officers charged with combined duties of military and scientific nature. The relationship of the personality profiles of a series of 28 officers, studied over a period of one year or more, with this unusual assignment is correlated with their emotional stability and success in the performance of duties." On the basis of this series it appears that if a normal personality curve is obtained, and if the stable performance of military personnel in a field demanding combined military and scientific efficiency is required, the Minnesota Inventory may provide an adjuvant screening device.—P. S. de Q. Cabot (United Drug, Inc.).

2635. Abramson, H. A. The effect of alcohol on the Personality Inventory (Minnesota); preliminary report. *Psychosom. Med.*, 1945, 7, 184-185.—The Multiphasic Personality Inventory was given to 20 adults before and after the ingestion of alcohol, with a 3-week interval between the two test administrations. No significant differences were found between the attitudes expressed by the subjects when under the influence of alcohol and when in a sober condition.—P. S. de Q. Cabot (United Drug, Inc.).

2636. Allport, G. W. The psychology of participation. *Psychol. Rev.*, 1945, 52, 117-132.—Half a century ago psychologists ascribed to personality certain governing agencies such as the will, the self, the moral sentiments, and the like. More recently in America, emphasis upon the motor processes has resulted in a kind of entropy for personality. Ego-functions were introduced to provide for a recentering of personality with an increase in its stability. Perhaps the most important distinction concerns reactive ego-functions as opposed to active ego-functions which find full expression in participant activity. Participation, as opposed to peripheral motor activity, taps central valves. In studying participation the psychologist has an approach to the complete person. By focusing upon problems of participation, social psychology can advance democracy. Skills learned by psychologists during this war are well designed to forward this purpose. Psychologists can employ them in diverse ways as consultants, personnel workers, community leaders, etc. 34-item bibliography.—M. A. Tinker (Minnesota).

2637. Atterbury, G. P. Psychodrama as an instrument for diagnostic testing. *Sociometry*, 1945, 8, 79-81.—Experiments are being conducted at the Psychodramatic Institute attempting to develop a brief psychodramatic procedure which can be used as a preliminary classification test for personality structure when the lack of time precludes a detailed examination. First results appear promising.—S. B. Williams (U. S. Naval Reserve).

2638. Clark, K. B., & Barker, J. The zoot effect in personality: a race riot participant. *J. abnorm. soc. Psychol.*, 1945, 40, 143-148.—An intelligent, 18-year-old Negro "zoot suiter" gives a verbal report of his participation in the Harlem riot of 1943. The report shows disintegration of personality in response to outlets for the frustration of being rejected or outcast. The disrespect for authority, persons, and property appears to be typical of the antisocial "zoot" reaction.—C. M. Harsh (Nebraska).

2639. Devereux, G. The logical foundations of culture and personality studies. *Trans. N. Y. Acad. Sci.*, 1945, 7, 110-128.—Although most culture and personality studies assume an influence of culture on personality, the assumption is unnecessary for research. Both culture and personality are conceptual schemes, without independent existence. The behavior of a particular individual may be explained by referring it to certain inductive generalizations. Personality, as a conceptual scheme, is not explained, but is rather subjected to analysis by tracing the genealogy of the component concepts. "It is very interesting to note that both types of approach tend to yield the same results in terms of

the understanding and prediction of the concrete behavior of a human being." Thus, the question changes from "Does biology or society determine human behavior?" to "Are biological or sociological concepts being used in a given context?"—F. W. Finger (Virginia).

2640. English, O. S., & Pearson, G. H. J. Emotional problems of living; avoiding the neurotic pattern. New York: Norton, 1945. Pp. 438. \$5.00.—The authors present a Freudian interpretation of specific personality patterns and emotional disturbances which may arise during each stage of development of the libido and in the face of adult problems. Frustration, inevitably growing out of the birth process, feeding routines and weaning, toilet training and the social taboos which become effective early in life, gives rise in turn to anxiety as ungratified impulses threaten to break bounds and bring punishment and loss of love upon the child. The defenses against this anxiety may take the form of conversion symptoms, phobias, and aggressive behavior even during the first year. Fear ("the normal neurosis") and temper ("the normal psychosis of childhood"), speech defects, naughtiness and delinquency, failure in studies, etc., are likewise traced to the attitudes which have their origin in the training given during the oral and anal periods. The common problems of work and marriage and later life, along with the personality disturbances associated with these, are discussed in the last third of the book. Specific therapy is suggested for the problems of each period as they are introduced, and a final chapter is devoted to psychiatric techniques in general. Stress is laid throughout on the importance to the medical practitioner of an adequate understanding of the principles outlined, but the book is planned for lay readers as well as for professional people.—M. R. Sheehan (Hunter).

2641. Green, G. H., & Alper, T. G. M. S. at fifteen and at forty: a didactic case study. *J. abnorm. soc. Psychol.*, 1945, 40, 149-153.—Two brief reports by Green show the initial and follow-up picture of a girl who, at 15 years of age, led a marked fantasy life. Alper illustrates the use of the material for class discussion of prognosis, with enumeration of conditions favoring mental breakdown or adjustment.—C. M. Harsh (Nebraska).

2642. Hall, A. Recording personality. *School*, 1945, 33, 778-781.—The forms and procedures are described which are used in obtaining frequent personality ratings of students.—G. S. Speer (Central YMCA College).

2643. Harrower-Erickson, M. R., Washburne, A. C., & Jacobs, J. S. L. A preliminary screening test for disturbances in personality. *Bull. Canad. Psychol. Ass.*, 1944, 4, 4-6.—The results obtained from 308 students on a multiple choice, group-test modification of the Rorschach technique are presented.—L. H. Beck (Brown).

2644. Hitschmann, E. Samuel Johnson's character: a psychoanalytic interpretation. *Psychoanal. Rev.*, 1945, 32, 207-218.—L. B. Heathers (Smith).

2645. Kramer, H. C. Inferiority feelings in psychotic conditions. *Indiv. Psychol. Bull.*, 1945, 4, 67-74.—"In tracing the characteristic traits of a patient's prepsychotic personality, we may be able

to find trends which are only gradually but not principally different from his psychotic ones. Feelings of inferiority, for instance, will not disappear with the development of his psychotic state, but may become manifest or more marked in his behavior, utterances, and attitude." In a survey of 50 psychotic cases, 94% had feelings of inferiority. Inferiority feelings "may become the source of derealization and depersonalization phenomena as manifestations of the patient's turning away from environment and reality." Several illustrative cases are presented.—S. B. Sarason (Southbury Training School, Conn.).

2646. Monroe, R. L. Three diagnostic methods applied to Sally. *J. abnorm. soc. Psychol.*, 1945, 40, 215-227.—A fairly average college girl is diagnosed from 'blind' (test material only) analyses from a group Rorschach test, a graphological analysis, and an appraisal of spontaneous drawings. The three analyses are presented in parallel for comparison with each other and with independent evaluations of Sally by teachers. The case study is presented to suggest that such projective tests may supplement the more usual mental tests in understanding the learning and adjustment problems of the individual student.—C. M. Harsh (Nebraska).

2647. Oppenheimer, F. Pamela: a case study in status symbols. *J. abnorm. soc. Psychol.*, 1945, 40, 187-194.—Three stories written in a thematic apperception test are interpreted to show status symbols supporting the author's hypothesis regarding the religious and social nature of serious conflicts present in a postdébutante.—C. M. Harsh (Nebraska).

2648. Pinto Cesar, R., & Alves, C. R. Biotipo e doença mental; considerações em torno das concepções de Kretschmer. (Biotypology and mental disease; considerations in terms of Kretschmer's concepts.) *Rev. paul. Med.*, 1943, 22, 343-347.

2649. Podolsky, E. The epileptic brain and its influence on history. *Med. Rec., N. Y.*, 1945, 158, 293-294.—The author mentions briefly various historical figures who suffered from epilepsy, with comments upon their role in influencing world events.—M. H. Erickson (Eloise Hospital).

2650. Sargent, H. Projective methods: their origins, theory, and application in personality research. *Psychol. Bull.*, 1945, 42, 257-293.—The importance of the projective methods in contemporary psychology has led the writer to gather data for the present review. The analysis is made under the following headings: (1) background, (2) applications, (3) experimental results, (4) methodological problems, and (5) evaluation. The bibliography of 274 titles is subdivided into special topical sections.—S. Ross (U. S. Naval Reserve).

2651. White, R. W., Tomkins, S. S., & Alper, T. G. The realistic synthesis: a personality study. *J. abnorm. soc. Psychol.*, 1945, 40, 228-248.—A fairly well-adjusted Harvard junior, studied intensively by 24 workers at the Psychological Clinic, is described in detail with respect to manifest traits, ideals and aspirations, abilities, temperament, family history, fantasies, and behavior under stress. The study reveals that the present adjustment was reached by overcoming difficulties and resolving im-

portant conflicts. Some conflicts are only partially solved, but the habits of realistic evaluation of self and aspirations are well established. The self-discipline of the subject is revealed in unusual adaptability and control under experimental frustration.—C. M. Harsh (Nebraska).

[See also abstracts 2422, 2587, 2604, 2608, 2609, 2618, 2621, 2622, 2623, 2624, 2632, 2669, 2675, 2692, 2695, 2696, 2697, 2708, 2737, 2738, 2784, 2798.]

GENERAL SOCIAL PROCESSES

(incl. Aesthetics)

2652. Allee, W. C. Social biology of subhuman groups. *Sociometry*, 1945, 8, 21-29.—Present knowledge of the biological foundations of social behavior is briefly summarized. The author favors the view that, in the long run, co-operative and altruistic drives are slightly stronger and more important in nature than the disoperative and egoistic. (See 17: 3843.)—S. B. Williams (U. S. Naval Reserve).

2653. Axtelle, G. E. Practical strategies in facing fixed attitudes. *Advanc. Management*, 1945, 10, 17-22.—This article reports and interprets the efforts of a union organizer to form a factory union in a small town in upstate New York. Three major steps were adopted: (a) gathering the facts of the case as they were directly or indirectly related to the workers and the work situation, including information on influential personalities, social and cultural factors that determined attitudes, and political and economic factors that affected security; (b) projecting a community goal by educating both employees and other interested citizens in the contribution that a stable and efficiently run company could give to the community; and (c) developing a plan of action that would co-ordinate the efforts of the community leaders among the workers and in management. The interpretation is based on a report of the activities given the author by the union organizer.—H. Moore (Stevenson & Kellogg, Toronto).

2654. Bennett, J. W. The interaction of culture and environment in the smaller societies. *Amer. Anthropol.*, 1944, 46, 461-479.—The study of the cultural-environmental relationship has usually been directed toward those situations where unusual or difficult environments require unusual or distinctive cultural adjustments. The problem of the present study has two aspects: (1) the differences in cultural adjustments to difficult and hospitable environments and (2) the basic processual similarities in the interaction of culture and environment, in any environment. The data are derived from cultural and natural features in a Middle Western region (southern Illinois) of temperate climate and fertile resources. The period of aboriginal occupation extends from 1000 A.D. to 1630 A.D. The contemporary period extends from 1820 to the present. The general method consists in the evaluation of the complexity of the cultures. "It would seem that whereas extremely difficult environments produce distinctive cultures that may not be found elsewhere, hospitable environments offer a choice of features that cultures may accept or reject, depending upon their historical development and socio-economic

systems. Sometimes, as in the case of Middle Mississippi culture, there occurs a selection of one feature that produces high concordance and a distinctive culture. The process of interaction, positive balance, is no different in these cases of concordance in temperate climes than in the case of difficult environments."—*F. Fearing* (California).

2655. **Britt, S. H.** Questions on law in connection with military government. *J. leg. polit. Sociol.*, 1943, 2, 136-152.—A series of questions is presented by means of which an individual dealing with an unfamiliar cultural group may gain a fairly adequate conception of the local laws and customs.—*F. W. Finger* (Virginia).

2656. **Carp, B.** A study of the influence of certain personal factors on a speech judgment. New Rochelle: The Little Print, 1945. Pp. 122. \$2.50.—Motivated by controversy regarding the reliability of speech tests used in the selection of teachers for New York City schools, this experiment was designed to determine whether the audible aspects of speech can be measured without significant influence from visual impressions and personal knowledge about the person tested. Twenty-four judges, all graduate students in speech, working in groups of 6, rated 25 examinees especially selected to vary widely in personal characteristics and background. Analysis of variance of scores on specially devised speech appraisal forms showed that, under the highly favorable conditions of the experiment, sight of the examinee and some biographical knowledge of the examinee did not significantly affect the speech ratings. It is pointed out, however, that variance due to the judges was greater than would have been anticipated from their consistency as measured by reliability coefficients. Furthermore, ratings of one individual of outstandingly favorable personality were consistently affected to a large degree by the opportunity to see as well as hear his test performances.—*W. H. Wilke* (U. S. Naval Reserve).

2657. **Carpenter, C. R.** Concepts and problems of primate sociometry. *Sociometry*, 1945, 8, 56-61.—Methodological requirements for studies of the social behavior of free-ranging primates are briefly stated, and a few of the many problems of measurement are pointed out. The concept "social relation" should not be reified or used as a sociometric unit but should refer only to interactive aspects of individually determined behavior. The fact that all social control appears to be intragroup, i.e., there is no remote control as in human society, makes primates ideal subjects for sociometric experiments.—*S. B. Williams* (U. S. Naval Reserve).

2658. **Clark, H. F.** Experiments in the social sciences. *Science*, 1945, 101, 393-398.—In the social sciences it is often difficult to perform experiments in the controlled and precise manner of the laboratory sciences. Illustrative examples are given which demonstrate the effectiveness of a "try it and see" method of obtaining information upon social problems. If different answers are proposed as the solution to a problem, the author suggests that all be tried, if feasible, in order to discover which works best. Such a procedure can give valuable information in situations where argument, debate, and mere observation are fruitless.—*F. A. Mote* (Connecticut).

2659. **Cooper, R. L.** The frustrations of being a member of a minority group: what does it do to the individual and to his relationships with other people? *Ment. Hyg.*, N. Y., 1945, 29, 189-195.—"The most all-pervading sense of frustration that literally engulfs the Negro people is their caste relationship to the majority group and the mechanisms of segregation and discrimination that are its attendant counterparts." Professional and practitioner groups must re-examine their fundamental attitude toward minority groups and must help create a living situation in which culturally conceived and culturally sustaining frustrations do not exist. Functions of the Wiltsyck School for Boys, where alleged delinquent and emotionally disturbed children are placed in a mentally hygienic environment, are described.—*W. L. Wilkins* (U. S. Naval Reserve).

2660. **Cuber, J. F.** Family readjustment of veterans. *Marriage & Family Living*, 1945, 7, 28-30.—A brief summary is offered of data collected during a 3-year study of nearly 200 college men who have been in service, 60 of whom are now discharged. The findings reported here are tentative and are limited to adjustment in the affectional sphere. Three general findings are: veterans are usually preoccupied with their economic problems; men in service tend to idealize persons, places, sentiments, and past events; and many veterans recognize that they have changed, but no one seems to recognize that the civilians who remained at home have also changed. At least 7 changes in veterans make domestic re-assimilation difficult: loss of confidence in their ability to function well as civilians, desire to escape from the obligations of the conventional family man, loss of domestic skills, possession of skills which cannot be used, hyperconsciousness about the problems of the new civilian status, loss of morale, and the "Rip Van Winkle feeling." Returning service men are frequently resentful of many well-intentioned civilian efforts to facilitate their readjustment. "The role of interpreter of the problems . . . is easier by far than is the role of the therapist charged with the responsibility of guiding the specific case. . . . Extreme caution is necessary lest therapy produce more anxiety than it allays."—*L. H. McCabe* (Cambridge, Mass.).

2661. **Dunham, H. W.** War and mental disorder; some sociological considerations. *Social Forces*, 1943, 22, 137-142.

2662. **Ellwood, C. A.** Culture and human society. *Social Forces*, 1944, 23, 6-15.—Social behavior is dominated by the culture of one's group; culture depends on the interchange of experiences and thus upon language symbols and a continuing linguistic tradition. Imitative action does not produce culture. The expression of innate tendencies is determined by the culture of the group. There are stages of learning and of achieving control, since there are psychological stages in the process of learning. Culture evolves by laws of its own; however cultural evolution is controlled by both organic and social evolution. Cultural anthropology is basic to all the other social sciences.—*H. A. Gibbard* (Brown).

2663. **Ford, R. N., & Henderson, D. E. V.** A multiple-factor analysis of Ford's White-Negro

Experience Scales. *Social Forces*, 1942, 21, 28-34.—Multiple-factor analysis is applied to two attitude scales to determine whether or not they are separate scales measuring different things. Three rather well-defined factors and a group of poorly defined factors emerge from this analysis. It is concluded that the most pressing problem in the field of measurement is determining the dimensionality of tests and that multiple-factor analysis is "probably the most powerful tool yet developed in the field of test construction."—G. S. *Speer* (Central YMCA College).

2664. Garrett, H. E. "Facts" and "interpretations" regarding race differences. *Science*, 1945, 101, 404-406.—Data from the Army Alpha and Beta test scores of southern and northern Negroes and whites are presented. The author employs these data to show that, regardless of the interpretations which may be offered to account for the Negro and white score differences, the fact that the score differences exist cannot be denied.—F. A. *Mole* (Connecticut).

2665. Gilliland, E. G. Music for the war wounded. *Music Educators J.*, 1945, 31, No. 5, 24-25; 51.—Musical therapy and recreational music are differentiated. Three colleges are listed which are considered to have adequate courses in musical therapy.—P. R. *Farnsworth* (Stanford).

2666. Gillin, J. Cultural adjustment. *Amer. Anthropol.*, 1944, 46, 429-447.—The object of this paper is to make "certain suggestions for the analysis of cultural systems within themselves." Culture is defined as "a type of patterning which applies to and is associated without exception with all types of customs." Three types of customs are distinguished: actional, representational, and symbolic. Culture manifests itself in situations containing certain classes of components. These classes are hominid, social, environmental, psychological, and artifactual. The basic unit of a cultural system is a pattern. Patterns are characterized by a starting point, a course, and an end point. The course is directed towards specific goals. Two basic principles of cultural adjustment are postulated: compatibility, which concerns the adjustment of the culture to the elements of its situation, and consistency, which concerns the adjustment of the component parts of a culture one to another. Examples of various types of inconsistency and incompatibility are described.—F. *Fearing* (California).

2667. Hill, R. The returning father and his family. *Marriage & Family Living*, 1945, 7, 31-34.—In the modern family the father is "more than an earner and supplier of good things. He's a partner, friend and playmate." The meaning of separation is discussed from the viewpoint of the father, the mother, and the children. The meaning and the difficulties of reunion when the father returns are also pointed out. "The returning father's psychological difficulties can be solved at home with less loss of face than elsewhere. He can safely work out his tensions and fears on them if they have been educated to a spirit of tolerance and understanding."—L. H. *McCabe* (Cambridge, Mass.).

2668. Hostettler, G. Linguistic theories of Thomas Hobbes and George Campbell. *Etc. Rev.*

gen. Semant., 1945, 2, 170-180.—Hobbes was one of the first writers in modern times who did not take his language for granted. He was conscious of some of the effects of words upon human reasoning and tried to devise a linguistic system to minimize these effects. Campbell anticipated several of the principles of modern general semantics: the inductive scientific method must be applied to human problems; the conclusions derived from this method represent at best only high degrees of probability; and the unconscious process of abstracting is basic to the nonsense which language often imposes upon us.—R. B. *Ammons* (Iowa).

2669. Hulett, J. E., Jr. The person's time perspective and the social role. *Social Forces*, 1944, 23, 155-159.—The point of departure is L. K. Frank's article, *Time Perspectives* (see 13: 4966). A person's attitudes and overt conduct reflect his general and specific roles; these constitute much of the acquired content of his personality. The individual undergoes preparation in advance for social participation. Because the predictive elements of this socialization process are often defective, his personality usually contains a residue of responses, acquired from previous experience, which have no adjustment value but interfere with extemporized efforts at adjustment in new situations. The rapidity of social change complicates the problems of adjustment.—H. A. *Gibbard* (Brown).

2670. Hungerland, H. The concept of expressiveness in art history. *J. Aesthet.*, 1945, 3, No. 11-12, 22-28.—Art critics have long argued over the psychology of expressiveness in art. Hungerland suggests that three types of expressiveness be distinguished: (1) the art object may express something to interpreters who are of the artist's own culture area and period; (2) it may or may not express something different to interpreters of a different culture area and period; and (3) it may or may not express something different to the creator of the art object.—P. R. *Farnsworth* (Stanford).

2671. Jackson, W. M. Interactions in a college fraternity. *Appl. Anthropol.*, 1944, 3, 16-21.—The purpose of this study of a college fraternity as a group was to discover the reasons "why everything does not run smoothly all the time instead of just in spurts." The personalities and fraternity functions of the leaders are analyzed. "The ups and downs in the spirit of the fraternity were explained by the fact that the whole group recognized only one leader, and when he originated action spirit was high, but when one of the other leaders . . . initiated action to them directly, they did not like to respond, and thus the fraternity would seem to go into a slump."—F. *Fearing* (California).

2672. Jennings, H. S. Social life and interrelationships in certain protozoa. *Sociometry*, 1945, 8, 9-20.—Recent researches by Jennings, Kimball, and Sonneborn are summarized. Although protozoa are unicellular organisms, they are differentiated into many varieties and sex types. Social relationships are almost wholly dependent on sex differentiations and their derivatives, e.g., age groupings with respect to sexual maturity. Mating reactions are the main social contacts and are prescribed largely by group membership. In *Paramecium bursaria* there are 18

known sex types distributed into four non-interbreeding varieties. Usually two mature individuals of the same variety but of different sex type, when brought into contact, mutually adhere and finally conjugate. However, the factors affecting mating behavior are sufficiently numerous to result in a truly complex social system.—S. B. Williams (U. S. Naval Reserve).

2673. Johnson, W., & Wood, C. B. John told Jim what Joe told him; a study of the process of abstracting. *Etc. Rev. gen. Semant.*, 1944, 2, 10-28.—Various questionnaires and interviews were used to select the 30 students most favorable and the 30 least favorable toward Negroes from a group of 236 undergraduate college students. Ten of each group read once an 828-word article presenting data and opinions about Negro-white differences; then they wrote as full a report as possible of what they had read. Ten more of each group followed the same procedure, this time reading the abstracts made by the first group and writing down what they could remember. The final 10 in each group read the abstracts of their respective second groups and wrote down what they could remember. There was a decrease of roughly 50% for both groups in number of units correctly reproduced from one stage of abstracting to the next. The favorably disposed group tended strongly to remember favorable statements; the unfavorable group, unfavorable statements. This same trend was observed in connection with statements added which were unrelated to the original material. "The results of the present study indicate quite clearly . . . that differences in attitude toward the content of the material being abstracted lead to corresponding differences in the re-statement of that content."—R. B. Ammons (Iowa).

2674. Josey, C. C. *The psychological battlefield of democracy*. Indianapolis: Butler University Press, 1944. Pp. 96. \$1.00.—There are three battlefronts of democracy: the military, the social-economic-political, and the psychological. The struggle between the democratic values of justice and love of man and the fascist values of power and special privilege is not confined to the field of international rivalry, nor even to intergroup rivalry within our own country. It is carried on within each individual, in the form of rivalry between motives of selfishness, domination and destructiveness, on the one hand, and the needs for social acceptance, co-operation, self-respect and psychological security, on the other. Fascistic attitudes spring mainly from infantile motives; democratic, from adult motives. Many illustrations are given of the way in which rationalization can operate within an individual to favor fascistic rather than democratic attitudes; these bear directly on current social issues. Victory on the psychological front is as important as it is on the military front.—S. B. Williams (U. S. Naval Reserve).

2675. Kardiner, A., Linton, R., Du Bois, C., & West, J. *The psychological frontiers of society*. New York: Columbia University Press, 1945. Pp. xxiv + 475. \$5.00.—The technique of psychodynamic analysis is developed for the study of relations between personality and culture. It is holistic,

genetic, dynamic; it is based on the clinical observations and modified operational concepts of Freud and can find in the individual the relations between remote culture traits; and it deals with direct experiences, which involve co-ordinative functions between stimulus and response. Kardiner is psychological commentator on ethnographic data supplied for Comanche, Alor, and Plainville by Linton, Du Bois, and pseudonymous West. The procedure is to survey a culture and trace the effects of institutions and practices on personality and the after-effects on secondary institutions like religions and ideologies. A basic personality is then described for the culture. This is a summary of the chief personality constellations and is checked against biographies and Rorschach analyses. The final chapter shows how basic personality is used in the study of social change and in a forthcoming history of Western man. Over a long period some essential determinants of personality do not change, and the enduring basic personality then in turn limits the types of adaptation of the society. The admirable personal consequences of certain Western institutions are often negated by the effects of (a) excessive dependence on parental aid and (b) strict taboos on sexual activities which are not injurious to society and which, when permitted, "create relaxor function for the difficult integrative tasks of childhood."—V. Nowlis (Indiana).

2676. Kay, L. W., & Schick, J. H. *Role-practice in training depth interviewers*. *Sociometry*, 1945, 8, 82-85.—A study of social conflict in a community of mixed ethnic groups required that interviewers obtain information regarding the informants' intimate, private attitudes. Interviewers trained by practicing, in succession, each of several roles representing different approaches of the interviewer (friendly inquirer, stranger, analyst, etc.) and different types of respondent (Negro, Italian, Jewish, etc.). After classroom practice with each other, the trainees were allowed to do supervised practice interviewing in the community. The role-practice method of training is regarded as peculiarly successful in developing skill and insight in the interviewer.—S. B. Williams (U. S. Naval Reserve).

2677. Keeler, C. E. *Gene determined physical modifications affecting the sociometry of rats*. *Sociometry*, 1945, 8, 30-41.—The laboratory rat mutant differs from the wild gray rat in many physical characteristics which probably are determinants of socially relevant behavior. The physical differences are genetically determined in many known instances and seen to be reductions from the wild gray's nature. Marked behavioral differences appear which probably are due to variation in a single coat color gene. Rats are good subjects for controlled studies of interpersonal behavior.—S. B. Williams (U. S. Naval Reserve).

2678. Leighton, A. H. *The governing of men; general principles and recommendations based on experience at a Japanese relocation camp*. Princeton, N. J.: Princeton University Press, 1945. Pp. xvi + 404. \$3.75.—The author reports on the research unit developed at the Poston Relocation Center. The book is chiefly a contribution, psychiatric and anthropological, to the general problem

of administering dislocated peoples. Part I tells the story of Poston from its beginning in April, 1942, to the successful termination and immediate consequences of the November, 1942, strike. Part II presents 46 principles and 102 administrative recommendations concerning (1) types of psychological stress, (2) types of reaction to stress, and (3) the function of systems of belief and of social organization in the perception of and reaction to stress. The analysis is applied to administrators and administrated people alike. An appendix, "Applied Anthropology in a Dislocated Community," by Leighton and E. H. Spicer, describes the history and organization of the research unit, its relations with the administration and the community, and its methods, data, and results. The unit gained necessary prestige through its role in the satisfactory settlement of the strike. "Suggestions that worked, rather than carefully documented systematic data, had made a place for research in the administration of the project." There is a 40-item bibliography.—V. Nowlis (Indiana).

2679. Malinowski, B. *The dynamics of culture change; an inquiry into race relations in Africa*. New Haven: Yale University Press, 1945. Pp. xiv + 171. \$2.50.—This is a posthumous work edited by Phyllis M. Kaberry. The first half of the book deals with the new task of modern anthropology in studying changes in native cultures under the impact of European influences. Here the interests of the functional anthropologist and the colonial administrator converge, for implicit in the interest of the former is the question which occupies the latter: how institutions can be transformed. There follows a discussion of various theories of culture change and of the author's own theory, which he calls the functional theory of culture. According to this theory the study of culture change, such as in the African case, "must take into account three orders of reality: the impact of the higher culture; the substance of Native life on which it is directed; and the phenomenon of autonomous change resulting from the reaction between the two cultures." The technique for handling data relevant to each characteristic studied is to project the data onto a three-column table representing the phases of culture contact and change. In this manner, in the second half of the book, some specific African institutions are analyzed: warfare, witchcraft, problems of native diet, land problems, and indirect rule.—E. Lilge (California).

2680. May, M. A. *The psychological foundations of peace*. *Ann. Amer. Acad. polit. soc. Sci.*, 1944, 235, 128-134.—The psychological foundations of peace must be positive and constructive. A first step is the difficult one of creating attitudes for world citizenship. A study of psychological mechanisms involved in peaceful intragroup behavior suggests that "international peace will require first, international law and police force; second, the building up of an international code of conduct, . . . and third, the development of an international conscience in a large number of people."—S. S. Sargent (Barnard).

2681. Miller, H. G. *The place of the feeble-minded in the post-war world*. *Amer. J. ment. Def.*,

1944, 49, 99-101.—"The standards of personal adequacy which rule the feeble-minded out of normal society are clung to by the intelligent and the unusually bright because they give feelings of self-satisfaction. A democratic recognition of relative inadequacy and a desire for challenging responsibility are needed by persons of all grades of intelligence. . . . I do not believe that the feeble-minded or our own emotions need, or react favorably to, the usual sort of domination by the thinking processes. . . . We shall have to learn . . . to search for growth ever toward a more equitable framework with jobs and responsibilities more and more suitable to all of our varied requirements."—S. Whiteside (Cincinnati Public Schools).

2682. Mowrer, H. R., & Mowrer, E. R. *Ecological and familial factors associated with inebriety*. *Quart. J. Stud. Alcohol*, 1945, 6, 36-44.—Comparison of two culturally distinctive Chicago areas, one characterized by a high rate of alcoholism (Near South Side) and one by a low (West Ridge), showed people in the high-rate area to have greater mobility, to be less likely to have normal family relationships, to be more likely to be socially isolated, and to be in-between in birth order. Basically the pattern of the alcoholic personality is laid down in the interaction within the early familial group. Communal factors subsequently give direction to the expression of this basic pattern but are not causal to it.—W. L. Wilkins (U. S. Naval Reserve).

2683. Opler, M. E. *Cultural and organic conceptions in contemporary world history*. *Amer. Anthropol.*, 1944, 46, 448-460.—F. Feary (California).

2684. Pastore, N. *A social approach to William McDougall*. *Social Forces*, 1944, 23, 148-152.—McDougall's social opinions are those of a conservative who is perturbed by social forces that threaten the status quo; he held it a function of psychology to prevent too disruptive a change. His writings contain antidemocratic and anti-Semitic references. The basic feature of his thinking was his hereditarian point of view. He held that the acquisitive instinct has inevitable social consequences and that the stressing of environmental factors is socially disruptive. He attributed class inequality to innate differences. McDougall failed to take account of the influence of social and institutional forces on human behavior.—H. A. Gibbard (Brown).

2685. Rife, D. C., & Schonfeld, M. D. *A comparison of the frequencies of certain genetic traits among Gentile and Jewish students*. *Hum. Biol.*, 1944, 16, 172-180.—A population of 241 Gentile students, principally of British and northwestern European ancestry, were compared with a population of 84 Jewish students, principally of Russian descent, in respect to the occurrence of the four blood groups, the M and N antigens, the Rh antigen, ability to taste phenylthio-carbamide, the frequencies of patterns on palms and whorls on fingertips, and functional handedness. Left-handedness occurred almost twice as frequently among the Jewish as among the Gentile students. This observation is confirmed by comparisons of the dermatoglyphics.—F. A. Beach (American Museum of Natural History).

2686. Samelson, B. *Mrs. Jones's ethnic attitudes: a ballot analysis*. *J. abnorm. soc. Psychol.*,

1945, 40, 205-214.—A study of many interview ballots on attitudes toward the Negro convinces the writer that there is congruence in an individual's responses to many different questions. The answers of a typical upper-class Southern woman are reported and interpreted to demonstrate an underlying consistency of viewpoint, with subtle evasion of fact and logic.—*C. M. Harsh* (Nebraska).

2687. Scott, J. P. Group formation determined by social behavior; a comparative study of two mammalian societies. *Sociometry*, 1945, 8, 42-52.—Despite the gap between human and animal societies, it is possible to refer certain human problems to animal experimentation. For example, differences in social behavior between sheep and mice seem to result in corresponding differences in group formation. Sheep are mutually initiative; mice, not at all. Mice more than sheep exhibit epimeletic behavior (grooming, etc.), shelter-seeking, and investigation. "The result is that the typical sheep group is a number of sheep which are going somewhere, whereas the typical mouse group is a few mice more or less passively huddled together in a nest." Social behavior is analyzed into several types, some of which facilitate group formation and some do not.—*S. B. Williams* (U. S. Naval Reserve).

2688. Stroup, H. H. The Jehovah's Witnesses. New York: Columbia University Press, 1945. Pp. vii + 180. \$2.50.—This is a psychological and sociological study of the Jehovah's Witnesses. The study is primarily an attempt to understand the Witnesses as people and secondarily an attempt to understand the movement in its historical and social frame. The author describes the history of the movement, its present organization and hierarchy, literature, beliefs, attitudes and behavior of the Witnesses, and their conversion experiences. The study is based on original observations of public and private practice, accompanied by data from the many publications of the sect.—*G. S. Speer* (Central YMCA College).

2689. Thompson, L. Some perspectives in applied anthropology. *Appl. Anthropol.*, 1944, 3, 12-16.—The author, on various grounds, rejects the definition of the role of the applied anthropologist as that of a social engineer. The basic objective for applied anthropology of the future "implies that the anthropologist, in cooperation with other scientists, will concern himself not only with means but also with ends, not only with policy implementation but also with policy formulation." He will inquire critically into the problem of administrative goals and try to formulate them pragmatically from an analysis of the data themselves, viewed in the context of the psychosociocultural whole in interrelationships with other such wholes, in the framework of a pluralistic world order. Rather than being a technician for hire, he will "try to clarify issues and offer suggestions as to how objectives may be implemented through existing mechanisms, through the revival of ancient mechanisms, or through the devising of new mechanisms and their integrations with the existing structure, in order to help the members of the social group itself, with the assistance of administrative personnel, work out their own problems."—*F. Fearing* (California).

2690. Thorndike, E. L. The association of certain sounds with pleasant and unpleasant meanings. *Psychol. Rev.*, 1945, 52, 143-149.—For each of six languages, a list of words with pleasant meanings and one with unpleasant meanings were made. In each of the languages there was an association, although not close, of certain sounds with pleasant meanings and of other sounds with unpleasant meanings. Ease of saying a sound has something to do with its association with pleasant and unpleasant meanings. This association seems to be caused in considerable measure by events in the history of a particular language. The bulk of the association of sounds with pleasantness or unpleasantness of meaning is caused by particular events in particular languages. The author considers that the selectivity of meanings in relation to sounds is a beautiful illustration of the potency of repetition and satisfyingness operating slowly, subtly, and variably to produce measurable results.—*M. A. Tinker* (Minnesota).

[See also abstracts 2431, 2522, 2580, 2584, 2585, 2592, 2607, 2611, 2613, 2620, 2625, 2626, 2630, 2636, 2637, 2638, 2639, 2647, 2649, 2692, 2695, 2700, 2708, 2709, 2726, 2763, 2764, 2772, 2781, 2791, 2793, 2795, 2802.]

CRIME AND DELINQUENCY

2691. Blasco y Fernández de Moreda, F. Valor de la estadística en los estudios criminológicos. (Value of statistics in criminological studies.) *Criminalia, Méx.*, 1945, 11, 258-272.—Criminal statistics furnish an indispensable aid to criminology. It must be remembered that their findings are only approximate. The maintenance of public statistics in the field is important. A history of the use of statistics in social science is given, going back to the 17th century and providing complete references.—*H. D. Spoerl* (Jeffersonville, Vt.).

2692. Bowlby, J. Forty-four juvenile thieves: their characters and home-life (II). *Int. J. Psychoanal.*, 1944, 25, 107-128.—The study (see also 19: 751) is concluded by analyses of possible genetic factors, the early home environment, the incidence of broken homes and mother-child separations, parental emotional attitudes, and traumatic experiences of later childhood. A summarization is given of the data and conclusions, together with a discussion of the psychopathology of the affectionless character.—*M. H. Erickson* (Eloise Hospital).

2693. Carr-Saunders, A. M., Mannheim, H., & Rhodes, E. C. Young offenders: an enquiry into juvenile delinquency. Cambridge, Eng., New York: Cambridge Univ. Press, Macmillan Co., 1944. Pp. x + 168. \$1.75.—This is a report of an investigation inaugurated by the British Home Office with respect to juvenile delinquency. It is based on a comparative statistical analysis of delinquent and control groups of males from London and six provincial cities. The first two chapters are devoted to a study of the previous investigations and a statistical analysis of the trends of delinquency. Chapter 3 covers the nature and the methodology of the study itself. The conclusions of this study, chapter 4, are that there has been a steady increase in delin-

quency but that no new causative factors are discernible; secondly, that delinquency cannot be adequately understood by periodic studies in time of anxiety. Regular studies must be employed instead. Psychological studies of (a) the types susceptible to delinquency and (b) the methods of treatment must be included if the problem is to be understood. A short final chapter covers the question of peak age of various crimes.—*R. D. Weits* (Jersey City, N. J.).

2694. **González de la Vega, F.** *El delito de rapto*. (The crime of rape.) *Criminalia, Méx.*, 1945, 11, 273-282.—Legal definitions of rape disregard certain behavioral realities and possibilities. The specification of the use of violence does not cover all significant aspects. Laws are defective in not providing for recognition of rape committed by females. It is difficult to determine the nature of coercive influence in certain cases. The relation to adulterous and marital complications is discussed.—*H. D. Spoerl* (Jeffersonville, Vt.).

2695. **Lazarsfeld, S.** *Organ inferiority and criminality*. *Indiv. Psychol. Bull.*, 1945, 4, 88-90.—This is a discussion of Charles DeCaster's *Tyl Uleenspiegel* which has recently been translated into English. "The book deserves the highest interest . . . for its analogy between what has happened today to the many countries occupied by Hitler with what occurred in the sixteenth century in Belgium. . . ." The hero, a peasant, saves his people from a man, the fishmonger, "a dreadful monster who in the most cruel way possible murders people." The trial of the fishmonger "shows the way in which so many criminals seek to overcompensate their inferiority." The fishmonger, as with Nazi leaders in present times, is one in whom there is "the urge to cultivate hatred when love cannot be found, to search for satisfaction by destroying what one cannot possess, and to worship money as a substitute, and to feel oneself the enemy of the whole world which one believes has definitely rebuffed him and ostracized him."—*S. B. Sarason* (Southbury Training School, Conn.).

2696. **McFarland, G. V.** *Personality difficulties—a problem in supervision*. *Fed. Probation*, 1944, 8, 36-39.—Accepting Karl Menninger's definition of personality ("All that an individual is and all he hopes to become"), the author points out that personality difficulties should not be considered by probation officers as a categorical matter of diagnosis and treatment. If a probation officer understands case work principles and is himself well adjusted, he should have little difficulty in co-ordinating his efforts with specialized services. He should understand the limits within which he can expect to succeed and should be able to recognize those symptoms for which more specialized skill is necessary in order to bring about effective treatment. Four cases are given to illustrate these principles, one each of paranoid psychoneurosis, anxiety neurosis, grandiosity, and functional disorder.—*P. S. de Q. Cabot* (United Drug, Inc.).

2697. **McGinnis, J. M.** *Some aspects of the psychology of the offender*. *Fed. Probation*, 1944, 8, 20-23.—Recent psychological research renounces the presence of "criminal types," and for practical

purposes it is more important to determine the manner in which individuals differ rather than the degree to which they are similar. Feeble-mindedness is no longer one of the major causes of crime, as indicated by the results of several studies. The author refers to the limitations of adult intelligence testing and discusses the emotional characteristics of offenders, the relationships between delinquency and inferiority, and the importance of frustration and frustration tolerance as causative factors. It is neither low intelligence nor gross physical, economical, or social circumstances that induce criminality; instead it is the more settled aspects of an individual's emotional life and his desire for personal recognition, his feelings of dejection, unhappiness about family problems, and other affective sources of mental conflict.—*P. S. de Q. Cabot* (United Drug, Inc.).

2698. **Mitchell, M.** *A delinquent adolescent*. *Family*, 1944, 25, 83-88.—The author describes the case of an adolescent girl, aged 17, the child of divorced parents, whose early life was spent with various relatives and whose mother at no time showed affection toward her. Later the mother remarried a man whom the girl greatly disliked and of whose young daughter she became intensely jealous. With advancing age her behavior showed increased maladjustment. Serious sexual delinquency eventually led her mother to seek help from a social agency. The girl was enabled to obtain a better understanding of herself; later she secured a job in a defense plant where she has made a good record.—*F. L. Goodenough* (Minnesota).

2699. **Salera, A. M.** *Algunas consideraciones sobre la delincuencia infantil en Rosario; su profilaxis*. (Some considerations on juvenile delinquency in Rosario; its prophylaxis.) *Bol. Inst. Psiquiat., Rosario*, 1943, 7, 129-175.—Of about 70,000 children of school age in Rosario, 25% leave school soon after beginning or do not attend at all. The occupations they pursue, in case of working, are largely 'street' occupations. A large proportion of delinquents investigated had parents with neuropsychiatric defects. The factors of heredity and home influence are discussed as well as environmental conditions; attempts at control used in other countries are summarized. Better enforcement of compulsory education and child labor laws is needed, as are programs of early investigation and re-education of juvenile delinquents.—*H. D. Spoerl* (Jeffersonville, Vt.).

2700. **Shipman, G.** *Probation and the family*. *Probation*, 1945, 23, 106-114.—Although family relationships are emphasized as causative factors in delinquency, there is neither legal philosophy nor a social institution which views the family as a unit for incarceration or probation. The author describes a proposed institution which would confine the entire family unit and provide psychiatric, medical, psychological, vocational, and social therapy for all members of the group. Referral of the family would occur whenever one member of the family was in custody of the probation or penal system.—*G. S. Speer* (Central YMCA College).

[See also abstracts 2522, 2581, 2794.]

INDUSTRIAL AND PERSONNEL PROBLEMS

2701. [Anon.] The facts about psycho-neurosis. *Fact. Mgmt. Mainten.*, 1945, 103, No. 2, 90-92.—This article discusses and defines psychoneurosis for the employer in relation to veteran re-employment. Also presented is a test, purported to reveal psychoneurotic tendencies, which is being experimentally used by an aircraft factory.—J. E. Zerga (Walt Disney Productions).

2702. Dantín Gallego, J., & Monasterio, M. F. Importancia de las taras constitucionales en los accidentes. (Importance of constitutional taints in accidents.) *Psicotecnia*, 1943, 4, 198-202.—Statistical incidence of predisposition to various disabling diseases is briefly indicated. The use of the capillaroscope would be invaluable in checking job applicants. In any case, a psychotechnical examination should be obligatory, with consequent job placement as indicated by it.—H. D. Spoerl (Jeffersonville, Vt.).

2703. Díaz Aguilar, I. La selección en la prevención de accidentes. (Selection in the averting of accidents.) *Psicotecnia*, 1943, 4, 278-282.—Many accidents could be foreseen if the several interested factors in the work situation were co-ordinated. These interests include that of management and that of the worker. Psychotechnics can assist in working out a smoother functioning of the total activity. Besides scientific selection, periodic examinations are important; also directive policies in regard to employment should be regularly revised.—H. D. Spoerl (Jeffersonville, Vt.).

2704. English, E. A study of the readability of four newspaper headline types. *Journalism Quart.*, 1944, 21, 217-229.—An attempt was made to determine if printing types commonly used in setting newspaper headlines differ in the ease with which they are read. A test of 45 three-line headlines with approximately 15-letter units per line was given to 45 subjects individually by means of a short exposure apparatus. Main results follow: (1) Cheltenham bold, Bodoni bold and Tempo bold families were superior in readability to Karnak medium. (2) Cheltenham bold all-capitals was read about 18% slower than lower case. (3) Speed of reading headlines was fairly constant for 14-point to 30-point sizes. (4) Reader judgments failed to agree with objective results.—M. A. Tinker (Minnesota).

2705. Figuerido, C. A., & Arigita, P. La selección psicotécnica de conductores de tranvías y trolebuses de Bilbao y sus resultados prácticos. (The psychotechnical selection of streetcar and bus drivers in Bilbao and its practical results.) *Psicotecnia*, 1943, 4, 242-248.—The selection program involved routine testing, including sensorimotor capacities and intelligence. About 37% of applicants were eliminated because of sensory defects. The predictive value of the selection procedure proved to be around 80% accurate, as to fitness of candidates for jobs given them.—H. D. Spoerl (Jeffersonville, Vt.).

2706. Gemelli, A. È possibile una selezione psicotecnica del chirurgo? (Is a psychotechnical selection of the surgeon possible?) *Arch. ital. Chir.*, 1938, 52, 322-327.—The surgeon must possess two psychological characteristics: the first involves in-

telligence, which must be quick and concrete, with good capacity for visualization and with power of concentrated attention; the second involves affectivity, requiring a great capacity for inhibition and self-control. In addition, manual dexterity is necessary. In light of these requirements, it would seem worthwhile to base the selection of prospective practitioners in part upon a psychotechnical evaluation.—(Courtesy *Année psychol.*)

2707. Gregory, J. L. Interviewing the returning serviceman. *Ment. Hyg.*, N. Y., 1945, 29, 255-261.—Most programs so far set up are based on anticipated rather than demonstrated needs of ex-servicemen. In three Connecticut cities, a social worker was stationed at Selective Service HQ where all returning men reported, to give diagnostic reference service. Preliminary results show that needs are not what the public expects the serviceman to feel.—W. L. Wilkins (U. S. Naval Reserve).

2708. Guest, P. L. Some personnel and administration problems in technical collaboration among nations. *Appl. Anthropol.*, 1944, 3, 6-11.—"It is the purpose of this paper to explain briefly a technical program being carried out by the government of the United States in collaboration with the governments of a number of the other American republics, and to call attention to some of the problems pertaining to the administrative personnel for a program of this type." The program consists in the establishment of agricultural experiment stations in some of the other American republics as a part of our Good Neighbor policy. These are operated jointly by the United States government and by the government of the country in which the station is located. Types of special ability and personality traits required of individuals who will administer these projects are described.—F. Fearing (California).

2709. Havighurst, R. J., & Russell, M. Promotion in the armed services in relation to school attainment and social status. *Sch. Rev.*, 1945, 53, 202-211.—R. C. Strassburger (St. Joseph's College for Women).

2710. Hegge, T. G. The occupational status of higher-grade mental defectives in the present emergency; a study of parolees from the Wayne County Training School at Northville, Michigan. *Amer. J. ment. Def.*, 1944, 49, 86-98.—Subjects were divided into two main groups on the basis of IQ: one with IQ's ranging from 50 to 75 inclusive; the other with IQ's above 75. At the time the data were collected, 88.6% of the first, or larger, group and 87% of the second group were employed; 61.4% of the boys in the first group and 72.8% of the second group were directly participating in the war effort as workers in war plants or as members of the Armed Forces. Girls in both groups tended to be employed in their own homes or on various civilian jobs. War workers were making on the average \$48.39 per week. The lowest wages, received by girls on miscellaneous jobs, averaged \$22.67 per week.—S. Whiteside (Cincinnati Public Schools).

2711. Herrey, E. M. J., & Herrey, H. Principles of physics applied to traffic movements and road conditions. *Amer. J. Phys.* 1945, 13, 1-14.—If one considers the influence space of a vehicle, that is, a

certain empty space required for it to proceed without interference with any other moving objects, determined by the driver's ability to perceive an obstruction early enough to react and to decelerate as much as necessary, one can set both an absolute traffic capacity to a highway (a function of its permanent physical features) and a relative capacity (the actual capacity of the highway considered for the particular traffic combination it has to discharge under average weather conditions). General methods of measuring and comparing the efficiency of highways in terms of capacity are given. The influence of single physical features of the traffic channel, such as curves, gradients, clear-sight distances and surface conditions, and also features of the traffic itself, such as its average speed, vehicle types and performance, and braking power under various weather conditions, can be determined.—*L. H. Beck* (Brown).

2712. Ibarrola Monasterio, R. *La psicotecnia del sujeto en relación con la prevención de accidentes y enfermedades profesionales.* (Psychotechnics bearing on accident prevention and occupational diseases.) *Psicotecnia*, 1943, 4, 95-123.—Statistical analysis (10 tabulations and 10 graphs are given) of the complex data on industrial accidents shows that 75% of accidents are due to personal factors rather than to work hazards. The only practical corrective is proper selection of workers in the light of what is known about accident proneness and maladaptation. No one simple method of selection is adequate; the more the whole range of conditions is considered, the better. Constitutional factors are especially important, nor should environmental conditions (off the job) be overlooked. Much can be learned by testing psychomotor performance, emotionality, and personality trends.—*H. D. Spoerl* (Jeffersonville, Vt.).

2713. Lederer, L. G. *The application to commercial aviation of some physiological factors developed by military aviation medicine.* *J. Aviat. Med.*, 1945, 16, 85-90.—The author points out the commercial applications of certain findings of military aviation medicine. The following topics are discussed: night vision, cockpit illumination, anoxia, low-pressure indoctrination, pilot fatigue, diet, mental preselection, and air evacuation.—*A. Chapman* (U. S. Army Air Forces).

2714. Lewinski, R. J., & Galway, E. J. *Psychological services at a Naval Retraining Command.* *Psychol. Bull.*, 1945, 42, 297-300.—The present report covers the activities of psychologists at a Naval Retraining Command, which functions under the Corrective Services Division. The Command is designed to provide peno-correctional services.—*S. Ross* (U. S. Naval Reserve).

2715. Mallart, J. *Causas psicológicas de los accidentes y modo de eliminarlas.* (Psychological causes of accidents and means of eliminating them.) *Psicotecnia*, 1943, 4, 142-147.—Through a questionnaire answered by 284 persons, a study was made of traffic accidents that were occupational in nature. Over half the respondents admitted psychological faults instead of blaming, for example, mechanical failures. Faulty attention and faulty judgment were important factors. Selection for work rather

than re-education is considered the best method of elimination.—*H. D. Spoerl* (Jeffersonville, Vt.).

2716. Martí Lamich, E. *Análisis de cien accidentes del trabajo ocurridos en Madrid en el primer trimestre del año 1943.* (Analysis of 100 work accidents occurring in Madrid in the first quarter of 1943.) *Psicotecnia*, 1943, 4, 124-135.—In the cases chosen, the chief factors in accident frequency were found to be age (functioning inversely), inadequate training for the job, faulty work adaptation, and failure of attention. Half the cases seemed to be predisposed to accidents. General recommendations are made corresponding to these findings.—*H. D. Spoerl* (Jeffersonville, Vt.).

2717. Melian González, A., & Dantín Gallego, J. *El sentido muscular en los conductores de automóviles.* (The muscle sense in automobile drivers.) *Psicotecnia*, 1943, 4, 163-170.—A description is given of Störing's apparatus for measuring muscular sensitivity. The chief components of sensation are that of resting attitude (relaxed tonus), that of active and passive movement, and that of effort. It is suggested that testing of drivers might be valuable, and a table is given relating muscular strength, depth vision, muscular sensitivity, and type of physique.—*H. D. Spoerl* (Jeffersonville, Vt.).

2718. Miles, W. R. *Psychological aspects of military aviation.* In *Baitsell, G. A. [Ed.], Science in progress; fourth series.* New Haven: Yale University Press, 1945. Pp. 1-48; 305-308.—Contributions are summarized which have been made by psychologists in the selection and training of flight personnel, protection from the hazards of high flying, and maintenance of morale and efficiency through an understanding of flying fatigue and chronic flying stress. Flyers are selected for motor ability, intelligence, personal stamina, and dependability by testing procedures whose validities have been checked against actual success in flying. Training procedures, similarly evaluated, have been standardized by the use of manuals and training aids. These two contributions alone have resulted in great savings in cost and in personnel. 61-item bibliography.—*L. A. Riggs* (Brown).

2719. Monasterio, M. F., & Dantín Gallego, J. *El trabajo femenino.* (Working by women.) *Psicotecnia*, 1943, 4, 203-210.—Most of the adverse conclusions concerning the female worker ignore the farm labor supplied by women for centuries and women in factories throughout the 19th century. Moreover, the problem of capacity and of fitness is no different in connection with women workers in general than for the proper placement of men.—*H. D. Spoerl* (Jeffersonville, Vt.).

2720. Montes Navas, F. *Resultado de una información sobre accidentes del trabajo.* (Result of a report on work accidents.) *Psicotecnia*, 1943, 4, 249-263.—A sample report of the examination of a person involved in a traffic accident is offered, together with a general discussion of various aspects of industrial accidents from the point of view of an insurance company.—*H. D. Spoerl* (Jeffersonville, Vt.).

2721. Montes Navas, F., Pizano Macías, A., & Díaz Aguilar, I. *Una investigación psicotécnica sobre accidentes del trabajo.* (A psychotechnical

investigation of work accidents.) *Psicotecnia*, 1943, 4, 264-277.—Several samples are given of laboratory reports on workers investigated after having had accidents.—*H. D. Spoerl* (Jeffersonville, Vt.).

2722. Neuschutz, L. *Jobs for the physically handicapped*. New York: Bernard Ackerman, 1944. Pp. 240. \$3.00.—This book makes available to the physically handicapped and to rehabilitation agencies information regarding adaptable vocations and avocations. The following main types of handicaps are discussed in terms of jobs and hobbies: the cardiac, the orthopedically handicapped, the deaf and hard of hearing, the blind and partially blind, the arrested tubercular, and the elderly and the aged. Such general occupational and avocational fields as woodworking, ceramics, metalworking, drawing, knitting and sewing, cooking, gardening, writing, and photography are covered.—*J. E. Zerga* (Walt Disney Productions).

2723. Parrish, D. V. The use of psychological tests in industry. *Labour Mgmt*, 1943, 25, No. 267, 36-38.—The author discusses the value of tests, essential preliminary steps in initiating a testing program, general techniques of devising suitable job tests, and the administration of tests. The concluding statement is that "tests must change with technical changes in industry; new jobs and changes in existing jobs must be analyzed, and the analysis interpreted and related to the material and the standardization of the tests being used."—*J. E. Zerga* (Walt Disney Productions).

2724. Person, H. S. The genius of Frederick W. Taylor. *Advanc. Management*, 1945, 10, 2-11.—Taylor's studies were fundamentally of two types: (a) the effect of operations on the facilities and conditions provided by management, in order to discover the best tools to use, the best machine arrangements to set up, and the best work arrangement; and (b) the methods by which workers could best take advantage of the perfected condition of facilities provided for them. He endeavored to discover the laws of the managerial situation and to bring these laws into dynamic creative relationship with the work situational possibilities. His research was concerned with the material factors in the work situation, with the training and selection of workers, and with the development of intimate, friendly co-operation between management and workers.—*H. Moore* (Stevenson & Kellogg, Toronto).

2725. Peytraud, —, Rouchonnat, —, & Morgaut, M. E. Note sur une expérience pratique de sélection psychotechnique de spécialistes militaires. (Note on a practical experiment in the psychotechnical selection of military specialists.) *Rev. Serv. Santé milit.*, Paris, 1939, 111, 341-355.—Forty-one trainees in a course in artillery observation and calculation were given individual tests of perceptual and motor capacities and a group test of intellectual functions. On the basis of slow or irregular reaction, defective attention, poor concrete memory, deficient color vision, or low intelligence, 15 were classified as doubtful, 18 as poor; the remaining 8 were diagnosed as good. On the final examination in the course, 7 of the 8 good subjects were successful, while 29 of the 33 doubtful or poor subjects failed.—(Courtesy *Année psychol.*).

2726. Philip, B. R. A method for investigating color preferences in fashions. *J. appl. Psychol.*, 1945, 29, 108-114.—Ranking techniques were used in this exploratory study in determining preference order for 5 sets of colored fashion plates. Each set consisted of 25 cards: 5 plates each of black or gray, green, blue, red, and brown, differing in hue, saturation, and intensity. The cards were presented in random order to 19 male and 9 female college students. Total linear scale values were computed by Guilford's method and subjected to analysis of variance. Reliability of the technique is reported as being adequate. Although the few subjects used make conclusions tentative, it was found that the men preferred blue followed by black, while the women preferred black closely followed by green, with much emphasis placed on other costume factors.—*H. Hill* (Indiana).

2727. Ramírez, R., & Yalour, R. R. Selección psicológica previa de los aspirantes a pilotos en los grandes contingentes. (Psychological tests for selection of pilot candidates in large contingents.) *Rev. Sanid. milit.*, B. Aires, 1943, 42, 657-661.

2728. Ruiz-Castillo Basala, L. Estudio de las condiciones fisiológicas, motrices y psicológicas que deben poseer los componentes de la industria de la construcción para la eliminación de accidentes en la misma. (Study of the physiological, motor, and psychological conditions optimal in the building industry for eliminating accidents.) *Psicotecnia*, 1943, 4, 211-234.—Psychological job analyses are given of 23 building trades activities, including several employment ranks; each lists "subjective" and "objective" characteristics required on the part of the operative.—*H. D. Spoerl* (Jeffersonville, Vt.).

2729. Selling, L. S. Psychiatry in industrial accidents. *Advanc. Management*, 1945, 10, 70-75.—The most common causes of accidents are improper equipment, break-down in machinery, lack of adequate safety devices, faulty instructions in handling machinery, and the physical and mental makeup of the worker. Those resulting from the last cause are the most frequent; the group responsible for them are called accident-prone. The factors responsible for accident proneness may be in the undernourished condition of the employee, or in his attitude, or a result of emotional protest against mechanical safety appliances. Commonly these causes may be grouped as: (a) physical inadequacy, particularly in the use of the special senses demanded by the job; (b) psychophysical inadequacies, particularly in slowness of reaction time, inability to visualize, lack of capacity to judge the speed of moving objects, and excessive sensitivity to glare; (c) mental deficiency and neuroses, especially those with uncontrollable emotions or with preoccupation with other problems or with some form of dissatisfaction; and (d) poor safety attitude that is expressed in recklessness, indifference to authority, or antagonism to law and order.—*H. Moore* (Stevenson & Kellogg, Toronto).

2730. Silveira, A. Aproveitamento dos inaptos em serviços auxiliares de guerra; orientação de acordo com as aptidões. (Use of the unfit in auxiliary war services; orientation with respect to aptitude.) *An. paul. Med. Cir.*, 1944, 48, 72 ff.

2731. Spaulding, H. B. Psychological method applied to the selection of officers in the Canadian Army. *Bull. Canad. psychol. Ass.*, 1945, 5, 42-45.—The appraisal program by which officers are selected is outlined. In addition to a series of interviews, each candidate takes a verbal and a nonverbal intelligence test, a "health and attitudes" questionnaire, the Rorschach test, a mathematics test, and a test of basic military knowledge. Each candidate is also observed and rated as he attacks several individual and group problems. It is felt that as the result of these procedures very few unsuitable candidates are approved.—F. W. Finger (Virginia).

2732. Tiffin, J. The use of visual data as an aid to increase production and efficiency. *Trans. Amer. Acad. Ophthal. Otolaryng.*, 1943-1944, 48, 194-196.—Certain patterns of visual skills are associated with high production on certain jobs, while different patterns characterize the efficient employee on other jobs. Only in terms of a pattern checked against the employee's performance is it possible to determine the visual requirements and optimal pattern for a given job and the efficiency of the individual. The quantity or quality of output can often be increased thus by 5-25%. Tiffin illustrates this principle by reference to results with the Bausch and Lomb Ortho-Rater. Requirements differ so widely that practically all able-bodied persons are visually qualified for some type of work.—M. E. Morse (Baltimore, Md.).

2733. Van Allyn, K. Job placement reference; with introduction to the job placement technique. Los Angeles: National Institute of Vocational Research, Inc., 1945. Pp. 361. \$10.00.—This volume, the culmination of a 12-year research project, is divided into two distinct sections: (1) Introduction to the Job Placement Technique and (2) Job Placement Reference. The first section covers the use of the Job Qualification Inventory from the standpoint of its value to personnel directors, school counselors, and administrators of rehabilitation projects. The author stresses the fact that this inventory is a register of facts, not a test. It consists of (1) 210 questions, divided into 35 groups of 6 each, requiring "yes," "no," or "undecided" answers regarding occupational interests or abilities, and (2) a personnel-type form covering physical condition, educational record, employment record, etc. The scoring is a matter of tabulating the number of affirmative answers in each of the 35 groups. A profile is then drawn by plotting, on the first page of the inventory, the total affirmative answers in each group. The section on Job Placement Reference consists of an encyclopedia of indexed job titles and codes and occupational fields to accompany the Job Qualification Inventory. The job titles and codes conform to those listed in the *Dictionary of Occupational Titles*, Parts I, II, III, and IV, U. S. Employment Service. Selected references on rehabilitation, job analysis, tests and measurements, occupational counseling and placement, and industrial relations are listed at the end of the volume.—J. E. Zerga (Walt Disney Productions).

2734. Vernon, H. M. Prevention of accidents. *Brit. J. industr. Med.*, 1945, 2, 1-9.

2735. Villar, M. El problema de la formación profesional, desde el punto de vista psicológico. (The problem of occupational training from the psychological point of view.) *Psicotecnia*, 1943, 4, 148-153.—Psychological service is as important in training on the job for promotions as in vocational guidance. Scientific principles of selection should guide the choice of foremen and supervisors. Adjusting tastes to true aptitudes, promoting job satisfaction, and achieving congenial personnel relations are leading aspects of the problem of selection during the training phase.—H. D. Spoerl (Jeffersonville, Vt.).

2736. Villar, M. Consideraciones sobre una selección psicotécnica de automotorista de la Red Nacional de los Ferrocarriles Españoles. (Considerations on psychotechnical driver selection for the national network of Spanish railroads.) *Psicotecnia*, 1943, 4, 154-162.—While 85% of accidents in railroad traffic are due to the human factor, careful selection diminishes them by at least half. A job analysis is presented, together with a description of standard tests generally used and a brief survey of psychological service employed in various European countries. In one survey, a correlation of .78 was obtained between engineers and clerical workers in respect to general capacity. High intelligence, as well as reactive efficiency, is required.—H. D. Spoerl (Jeffersonville, Vt.).

2737. Warner, N., & Gallico, M. W. Cornell Service Index: report on its use in the evaluation of psychiatric problems in a naval hospital. *War Med.*, Chicago, 1945, 7, 214-217.—A study on 1,300 nonpsychotic patients is reported. The results correlate closely with the histories obtained by interview but do not reveal adequately difficulties of which the subject is unaware. The index does not sufficiently cover conversion hysteria and contains no questions relating to sexual difficulties. Its greatest value lies in deciding whether or not a patient should be referred to a psychiatrist and in simplifying consultations. It is also useful for obtaining groups for comparison according to the presence or absence of psychiatric determinants. It separates a psychiatrically normal person from a slightly or severely abnormal one more definitely than it distinguishes degrees of personality disturbance. Some subjects having histories replete with psychoneurotic symptoms are not thereby prevented from performing their duties successfully. A partial explanation lies in their motivation toward the Service. In general, the index applies adequately to the great majority of patients coming to the psychiatrist's attention.—M. E. Morse (Baltimore, Md.).

2738. Weider, A., Brodman, K., Mittelman, B., Wechsler, D., & Wolff, H. G. Cornell Service Index: a method for quickly assaying personality and psychosomatic disturbances in men in the armed forces. *War Med.*, Chicago, 1945, 7, 209-213.—The Service Index, which is explained in detail, is for men who have been in service at least a month. Essentially a neuropsychiatric questionnaire with quantitative features, it is designed to furnish the history quickly and to pick out persons with difficulties which might interfere with military per-

formance. It yields specific information needed for the subject's military record and contains "stop questions" for screening. Its function is to save the psychiatrist's time by pointing out items to be followed up in a subsequent interview or to be used in a statistical survey. A nonmedical person can administer it routinely to groups.—*M. E. Morse* (Baltimore, Md.).

2739. Wittson, C. L., & Hunt, W. A. Three years of naval selection: a retrospect. *War Med., Chicago*, 1945, 7, 218-221.—This is a review of 3 years' continuous service by a senior psychiatrist and a senior psychologist at a Naval training station. Among the conclusions are that some psychiatrists who are excellent in working up cases are unsuccessful in rapid screening and that specialization is therefore advisable. The majority of unfit cases missed during screening show up in 1-2 weeks. Of recruits originally considered unfit, one third are returned to duty after an observation period. Trial duty is essential for borderline cases, and it also gives an opportunity for superficial therapy, which sometimes leads to adjustment. The EEG is a valuable supplement. The conditions encountered are chiefly residuals of head injury and elusive psychomotor phenomena in personality disorders. There is great promise in the study of these subtler disorders which can be linked up with the findings in problem children, constitutional psychopaths, and chronic posttraumatic states. Some of the handicaps of psychiatric selection originated in a failure to meet in advance certain technical problems and to prepare trained personnel in the technique of screening large numbers of men, abbreviated tests, and development of rapid diagnostic acumen.—*M. E. Morse* (Baltimore, Md.).

2740. Wood, C. A. Multi-purpose personnel form saves time and effort. *Personnel*, 1945, 21, 310-312.—The author describes the development and content of a single-sheet personnel form that replaces a half-dozen different types of personnel forms. The form calls for brief answers on the part of the foreman relative to leave of absence, termination, merit increase, reclassification, transfer, employee rating, etc. The form, filled out in triplicate, is distributed as follows: one copy to the industrial relations office for personnel administration purposes, a second copy to the superintendent's office, and the third copy is retained by the foreman.—*J. E. Zerga* (Walt Disney Productions).

[See also abstracts 2412, 2433, 2478, 2479, 2487, 2489, 2494, 2496, 2502, 2505, 2507, 2508, 2509, 2526, 2540, 2548, 2567, 2576, 2596, 2601, 2604, 2634, 2653, 2746, 2751, 2765, 2769, 2771.]

EDUCATIONAL PSYCHOLOGY

(Incl. Vocational Guidance)

2741. Aliprandi, G. L'apprendimento della stenografia da un punto di vista teorico. (The learning of shorthand from a theoretical point of view.) *Boll. Accad. ital. Stenograf.*, 1938, 14, 13 ff.—After having passed through the ideographic, the phonetic, and the alphabetic stages, writing has in shorthand achieved a scientific level with certain artistic value.

Learning must progress to the point of automatism, both in reading and in writing; this requires greater effort than does the child's acquisition of reading and writing, although the 3 stages (mnemonic, intellectual, and expressive) are parallel. The capacities making for high degree of aptitude for learning shorthand are discussed.—(Courtesy *Année psychol.*).

2742. Aliprandi, G. La memoria "syllabica" nella dattilografia. ("Syllabic" memory in typewriting.) *Boll. Accad. ital. Stenograf.*, 1939, 17, 16 ff.—Typing rhythm seems to depend upon intellectual, cultural, and mechanical factors and upon ideographic, syllabic, and orthographic forms of memory. It is necessary to "feel" the distances between words, the values of syllables, the order of letters. Practically, speed of performance depends essentially upon correspondence between syllabic memory and orthographic memory. These considerations apply not only to typing but also to writing in general.—(Courtesy *Année psychol.*).

2743. Blanchard, M. G. A comparison of methods in teaching spelling. *Cath. Schs J.*, 1945, 45, 150-152.—It is concluded that the whole investigation "provides valuable evidence of the superiority of the Test-Study method over the Study-Test method" in learning a list of 222 words by eighth-grade children.—*G. S. Speer* (Central YMCA College).

2744. Bristow, W. H., & Hungerford, R. H. Slower-learning pupils—problems and issues. *High Points*, 1945, 27, 10-16.—By emphasizing academic proficiency, schools have failed to provide appropriate education for the lower 20% of the school population. It is felt that appropriate education for this group would first emphasize social competence and skills and, secondly, occupational adjustment. Some of the implications and possible results of the suggested changes are discussed.—*G. S. Speer* (Central YMCA College).

2745. Bunker, H. Selected activities characteristic of the active and nonactive student in physical education. *J. Amer. Ass. colleg. Registr.*, 1945, 20, 350-366.—Fifty active and fifty nonactive male college students are compared in terms of childhood play, high school physical education, athletic participation, and physical recreation in high school and college. It is concluded that "fundamental motor skills must be established, and favorable attitudes toward play must be developed in a child long before the high school years, or the odds greatly favor nonparticipation in sports throughout his subsequent life."—*G. S. Speer* (Central YMCA College).

2746. Crawford, A. B., & Burnham, P. S. Educational aptitude testing in the Navy V-12 program at Yale. *Psychol. Bull.*, 1945, 42, 301-309.—The report describes the results of educational aptitude testing of Navy V-12 students over a period of several years. Results are compared with previous data on civilian students at the same institution. Aptitude tests prove to be effective predictors of academic work when the latter is measured by objective achievement tests.—*S. Ross* (U. S. Naval Reserve).

2747. Davis, R. A., & Henrick, M. Predicting accomplishment in plane geometry. *Sch. Sci. Math.*, 1945, 45, 403-405.—Intelligence test scores, arith-

metic grades, algebra grades, and a test of ability in geometry were all correlated with grades earned in plane geometry. The Stewart-Davis test of ability in geometry was found to be the best single predictor.—G. S. Speer (Central YMCA College).

2748. De Bernardis, A., & Lange, P. C. An outline chart on types of tests. *J. educ. Res.*, 1945, 38, 612-616.—Each type of test available for the evaluation of instruction is summarized with respect to normal advantages, possible limitations, and suggestions for use.—M. Murphy (Pennsylvania).

2749. Geyer, E. M. Measuring achievement in modern education. *Engl. J.*, 1945, 34, 337-340.—The author reviews the trend in achievement test development during the last 25 years. It is concluded that tests of factual knowledge are well developed but that there has been little progress in the development of tests of other areas of knowledge.—G. S. Speer (Central YMCA College).

2750. Guiler, W. S. Computational weaknesses of college freshmen. *J. Amer. Ass. colleg. Registr.*, 1945, 20, 367-382.—A detailed analysis is made of the errors in computation made by 860 college freshmen on the Progressive Mathematics Test.—G. S. Speer (Central YMCA College).

2751. Hahn, M. E. Notes on the Kuder Preference Record. *Occupations*, 1945, 23, 467-470.—Although the Kuder Preference Record is inexpensive, easily scored, and allows a maximum of student participation, the tentative nature of its validation makes meaningful interpretation difficult.—G. S. Speer (Central YMCA College).

2752. Hopkins, L. T. What are the essentials? *Teach. Coll. Rec.*, 1945, 46, 493-500.—The development of more mature children and more stable adults requires for the child, not only exposure to the subject-matter essentials of education, but an emotionally stable environment, security with adults, status with his peers, freedom from fear and anxiety, freedom to explore his environment, sympathetic guidance, protection from situations in which he is unable to act intelligently, opportunity for group participation, aid in clarifying his meanings, aid in distinguishing between reality and fantasy, and an understanding of the process of learning.—L. B. Plumlee (College Entrance Examination Board).

2753. Liddy, R. B. Psychology for secondary schools. *School*, 1945, 33, 476-481.—After considering the objections which have been raised to teaching psychology in the secondary schools, the author concludes that high school students will profit from the study of psychology by better mental health and a better understanding of human nature.—G. S. Speer (Central YMCA College).

2754. Lorge, I. The Thorndike-Lorge Reading Test for grades 7 to 9. *Teach. Coll. Rec.*, 1945, 46, 453-459.—This reading test measures vocabulary in context as well as understanding of literary and metaphorical language; reasoning involving relationships within and among paragraphs and inferences beyond the passage; and ability to grasp details as well as the general import of the paragraph. Item types include questions, matching statements, and matching of aphoristic sentences; no separate vocabulary test is included. The relative weights of quality of

comprehension to speed are approximately 12 to 1. Correlations (based on 200 New York City pupils in grades 7-9 for each experimental form) between each of five experimental forms of this test and four other reading tests as criteria averaged .80. The estimated reliability based on the correlation between the two final forms of the test is .90.—L. B. Plumlee (College Entrance Examination Board).

2755. Lowenfeld, B. Braille and Talking Book reading: a comparative study. New York: American Foundation of the Blind, 1945. Pp. 53. \$1.00.—Two experiments are reported: (1) an investigation of braille reading at four grade levels, and (2) a comparison of Talking Book reading comprehension with braille material for children of different levels of intelligence. Materials were chosen from McCall-Crabbs Standard Test Lessons, and the subjects were 481 children in 12 schools for the blind. Grades 3 and 4 were provided materials in braille reading (BR), Talking Book recorded reading (TB), Talking Book recorded reading with sound effects (TBS), and Talking Book recorded reading with dramatizations (TBD). Grades 6 and 7 were given story and textbook material in BR and TB. Average grade rates were 30, 34, 37, and 39 words per minute in braille for 100 words on the TB. In reading comprehension, grades 3 and 4, TB is significantly superior to BR; TB and TBS differ little; TBD is least effective. Children with IQ's under 90 comprehend noticeably better with the Talking Book. With upper-grade children, braille is preferable for textbook material; TB, for story material. Recommendations are given for further consideration.—K. E. Maxfield (College of the City of New York).

2756. Mann, C. W. Vocabulary tests and intelligence: A reply to Dr. Glicksberg. *Etc. Rev. gen. Semant.*, 1944, 1, 253-256.—"Psychologists do not believe that there is an 'invariable relationship between size of vocabulary and greatness of intellect.' . . . The implication that vocabulary tests either 'do measure' or 'do not measure' is to make 'measure' a two-valued word, and is this not inadmissible in a paper on general semantics? . . . Psychologists will join with Dr. Glicksberg [see 18: 1872] in deploring O'Connor's implication that intelligence can be increased by extending the vocabulary; many will be equally chagrined by the substitution of the term 'human engineering' for 'psychology.'"—R. B. Ammons (Iowa).

2757. Martin, L. O. The prediction of success for students in teacher education. *Teach. Coll. Rec.*, 1945, 46, 520-521.—Abstract.

2758. Paton, J. M. The English examiner's dilemma. *School*, 1944, 33, 324-329.—The author reviews the problem of measurement in English and some of the attempts to devise tests for that purpose. It is concluded that two types of measurement are needed: objective tests for comprehension, mechanics, and other factual abilities; and qualitative evaluation for the more difficult qualities of appreciation and expression.—G. S. Speer (Central YMCA College).

2759. Plottke, P. C. Fear in the schoolroom. *Indiv. Psychol. Bull.*, 1945, 4, 85-87.—The author discusses the error that fear may be considered as an incentive for children's efforts. Too often the

teacher strives "to appear as a superman in the eyes of the world in general and of his principal and supervisor in particular, and tries unduly to push his pupils ahead. Sometimes he is a human being who suffered in his childhood from cruel domination of his surroundings and became a teacher because this profession allowed him to reverse the early situation." The encouraging teacher will avoid everything that is discouraging, such as corporal punishment, threatening, belittling, and making unjust criticism.—S. B. Sarason (Southbury Training School, Conn.).

2760. Roody, S. I. Plot-completion test. *Engl. J.*, 1945, 34, 260-265.—The test consists of ten plots, each with five endings. The subject is asked to number the endings in order of their probability. For each plot, two endings are possible and highly probable, one ending is contrary to the facts of the story, one is an extraordinary coincidence, and one is contrary to nature.—G. S. Speer (Central YMCA College).

2761. Sarralde, A. M. La selección en las escuelas de aprendices para la industria mecánica. (Selection in mechanical trade schools.) *Psicotecnia*, 1943, 4, 187-197.—A proposed examining protocol for use in trade schools consists of tests of general intelligence (Otis), spatial intelligence (Thurstone-Jones), mechanical intelligence, attention, manual dexterity (Rupp), cultural knowledge, and calculation (Claparède). Other procedures are discussed in relation to the misfit problem in Spanish industry and the high accident incidence among inexperienced workers.—H. D. Spoerl (Jeffersonville, Vt.).

2762. Scott, M. G., & French, E. Better teaching through testing; a practical manual for the physical education teacher. New York: Barnes, 1945. Pp. viii + 247. \$2.50.—The book aims to give a background for test construction, selection, and use, directed toward the improvement of the individual pupil. Topics discussed include administration of tests, measurement of skills in sports, evaluation of physical fitness, measurement of general motor ability, achievement ratings and progressions, construction of knowledge examinations, and statistical procedure. The use of the T-scale is advocated as a standard to encourage the student by giving him an understanding of his own relative ability. "Physical education has reached the stage where individual diagnosis is recognized as an essential step in the teaching process." Requisite objectives cited are health, motor skill, information, and social adjustment.—G. E. Bird (R. I. College of Education).

2763. Stoddard, G. D. Teach them the ways of democracy. *Ann. Amer. Acad. polit. soc. Sci.*, 1944, 235, 25-32.—Educational and psychological imperatives in the re-education of youth in Axis countries are described.—S. S. Sargent (Barnard).

2764. Taba, H. [Ed.] Workshops in intergroup education. *J. educ. Sociol.*, 1945, 18, 513-576.—This issue of the *Journal* examines education workshop programs on intergroup living. J. E. Warren, "Facing the need for intergroup education," discusses education's role from three viewpoints: the classroom, the democratic organization of the school

and extracurricular activities, and the influence of the unprejudiced teacher. H. H. Giles, "Intergroup education workshops and school problems," discusses problems with which schools and workshops have concern: administrative procedures, curriculum and methods, teacher education, and school-community relations. The following four articles treat respectively the Wellesley School of Community Affairs, the University of Chicago workshop, a Los Angeles workshop, and one at Harvard: M. Mead, "Group living as a part of intergroup education workshops"; A. Davis and R. J. Havighurst, "Human development and intergroup education"; S. G. Cole, "A workshop for urban community leadership"; and H. Taba, "A workshop for teachers." They include observations and suggestions on group living, with accounts of workshop programs. M. Edman describes what participants should take from their workshop experience, and a list of 1945 summer workshops in intergroup education is given by H. L. Seamans.—H. A. Gibbard (Brown).

2765. Toltchinsky, A. Le psycho-entraînement. Théorie et pratique. (Psycho-training. Theory and practice.) *Bull. Inst. nat. Orient. prof.*, 1939, 11, 61-70; 129-138.—By "psycho-training" is meant the methodical education of certain "psychic qualities" that are requisite for the learning and exercise of a vocation. The writer illustrates how a particular task is analyzed into its component skills, what type of special training can be determined to be relevant, and the effectiveness of such special training for improving ultimate performance.—(Courtesy *Année psychol.*).

2766. Toven, J. R. Appraising a counseling program at the college level. *Occupations*, 1945, 23, 459-466.—A study of 188 students who were systematically counseled for four years and a control group of 188 students who were not counseled indicates that the counseled students were more likely to graduate, had fewer scholastic difficulties, completed more point credits, and better realized their aims in attending college. Except in the first year, counseling was not associated with grade differences. Males were more responsive to counseling than females.—G. S. Speer (Central YMCA College).

2767. Tyler, F. T., & others. A cooperative approach to educational evaluation. *School*, 1944, 33, 280-285.—In an attempt to evaluate critical thinking rather than mere information, three tests were developed and are briefly described: test of logical reasoning, test of application of scientific principles, and a test of ability to interpret data.—G. S. Speer (Central YMCA College).

2768. [Various.] Counseling and postwar educational opportunities. *Amer. Coun. Educ. Stud.*, 1944, 8, Ser. 6, No. 5. Pp. vii + 18.—This report, prepared by the Council's Committee on Student Personnel Work, calls attention to the need for effective counseling of individuals if our postwar educational and training program of ex-service personnel is to be successful. Counseling must be started while the person is still in the Armed Forces and should be continued throughout the demobilization period, not only by the Armed Forces, but also by representatives of other government and private agencies.

Counseling should be done by state and community agencies after the individual has been discharged from the Armed Forces. Educational institutions are urged to set up counseling programs which will provide individualized assistance to the veteran. The need for trained counselors is also discussed.—*L. Long* (College of the City of New York).

2769. Whyte, W. F. Vocational education in industry: a case study. *Appl. Anthropol.*, 1944, 3, 1-6.—The first attempt to install a vocational education program in a manufacturing company was unsuccessful; a second attempt brought better results. The article reports an analysis of the causes of the initial failure and the more successful strategy. The essential factors involved improvements in staff-line relationships and the use of oral rather than written forms of communication as a means of influencing the behavior of the men.—*F. Fearing* (California).

2770. Wickhem, V. C. A report on the use of entrance and placement tests at the University of Chicago. *J. Amer. Ass. colleg. Registr.*, 1945, 20, 383-388.—This is a brief report on the use of entrance and placement tests, with a discussion of the change in emphasis which has resulted from experience. The tests now in use are in reality miniature comprehensive examinations.—*G. S. Speer* (Central YMCA College).

2771. Witty, P. A. Teaching the three R's in the Army. *Engl. J.*, 1945, 34, 132-136.—A description is given of the Army program of identifying the functionally illiterate, classifying them in terms of potential ability, and providing special teaching materials and methods. Implications of the program for civilian education are indicated.—*G. S. Speer* (Central YMCA College).

[See also abstracts 2437, 2474, 2489, 2521, 2642, 2646, 2665, 2709, 2791.]

MENTAL TESTS

2772. Laycock, S. R. Researches in the Revised Stanford-Binet Scale of Intelligence, Form L. *Bull. Canad. psychol. Ass.*, 1945, 5, 35-36.—To illustrate the relationship between experience and intelligence test score, 20 pairs of children were matched by L. C. Filby on the basis of MA, IQ, CA, sex, socioeconomic status, and attendance at the same school. The differential factor was in each case the use of English or lack of its use in the home. Analysis of the test items which differentiated the two groups suggests that the English group excelled in items particularly charged with the verbal element, the foreign group in items relatively free from this factor, i.e., when the two groups met on equal terms. It is logical to assume that the latter individuals were really the superior in intelligence, but that their test performance was handicapped by the lack of the typical language experience. The significance of this type of study for the nature-nurture controversy is pointed out.—*F. W. Finger* (Virginia).

2773. Lorge, I. Schooling makes a difference. *Teach. Coll. Rec.*, 1945, 46, 483-492.—In 1921-22, 863 boys in 8B classes in New York City elementary schools were given tests of abstract intelligence,

mechanical adroitness, and clerical ability. Their subsequent schooling and work were followed. In 1941, 131 of them were retested with two intelligence tests. From a comparison of mean score, variability, and test intercorrelations, the later group was assumed to be a representative sampling of the earlier group. Findings indicate that extent of schooling is a factor in an adult's intelligence test score. Social implications are discussed.—*L. B. Plumlee* (College Entrance Examination Board).

2774. Needham, N. R. A comparative study of the performance of feeble-minded subjects on the Goodenough Drawing, the Goldstein-Scheerer Cube Test, and the Stanford-Binet. *Amer. J. ment. Def.*, 1944, 49, 155-161.—In a large state institution for mental defectives, a study was made of 50 patients whose performance on the Goodenough Drawing Test was at least 2 years 10 months below the general mental level indicated by the Stanford-Binet. These subjects were paired with patients matched for Binet mental age with a discrepancy of not more than 14 months on the Goodenough. Both groups were administered the Goldstein-Scheerer Cube Test, a modification of the Kohs Block Test. The groups showed a significant difference in the mean number of successes achieved, the critical ratio being 6.00; that is, the group which did poorly on the Goodenough Drawing also did poorly on the block design type of test. The question of cortical involvement is raised and the hypothesis advanced that the difference in performance level between the two groups is indicative of differences in the degree of severity of impairment of intellectual functioning, without regard for the specific causation.—*S. White-side* (Cincinnati Public Schools).

2775. Pintner, R. Pintner general ability tests: non-language series. Intermediate test, Forms K & L. Yonkers-on-Hudson: World Book Co., 1945. (Manual, 1945.) 25 copies, \$1.80; specimen set, \$0.30.—This test is designed to meet the frequent need for measuring the general ability of those with language handicaps. It is also useful in discovering pupils with special aptitude for technical courses. It consists of 6 subtests made up wholly of material of a diagrammatic nature: figure dividing, reverse drawings, pattern synthesis, movement sequence, manikin, and paper folding. All the tests are of the multiple-choice type, and provision is made for scoring by means of a perforated key. Working time is 50 minutes. Split-half reliability for Form K, based on scores of 206 twelve-year-olds, is .858; for Form L, based on 237 twelve-year-olds, it is .890.—*L. H. McCabe* (Cambridge, Mass.).

2776. Wellman, B. L. Some misconceptions about intelligence. *Childh. Educ.*, 1944, 21, 108-112.—Misconceptions regarding intelligence result either from ignorance of research studies in this field or confused notions of the meaning of test scores and what intelligence tests should measure. The nature of the operations employed in the measurement of general intelligence will depend upon the definition accepted. Since the IQ is a reflection of the child's opportunities as well as his capacity, it is a common misconception to regard the IQ as impervious to experience. Further investigations should cover the inclusion of items favorable to the experience of the

rural child, the determination of what constitutes an environment stimulating to intellectual development, the influence of school at preschool ages and beyond, and the use of mechanical operations as possible manifestations of intelligence.—R. C. Strassburger (St. Joseph's College for Women).

[See also abstracts 2609, 2619, 2664, 2723.]

CHILDHOOD AND ADOLESCENCE

2777. Aldrich, C. A., Sung, C., & Knop, C. The crying of newly born babies. I. The community phase. *J. Pediat.*, 1945, 26, 313-326.—Four observers, each working on a 6-hour shift, took turns in making continuous observations of a group of infants in the nursery of a maternity ward in a modern hospital. The average population of the nursery was about 20 infants, and the observations were continued for a period of 30 days. Results are given only in terms of the averages for the entire nursery group; there is no information about the amount of variation from child to child. A modified time-sampling procedure was used with results plotted on a prepared chart by 5-minute intervals. Main findings for the group as a whole are as follows: (1) On the average, these infants spent 113.2 minutes per day in crying. (2) Peaks of greatest crying occurred shortly before the usual hours of feeding; periods of quiet usually followed the feeding hours. (3) Periods when, owing to the hospital routine, nurses were likely to be too busy with other matters to give much attention to the infants also coincided with peaks of greatest crying. (4) A slight positive relationship of crying to barometric pressure as reported by the weather bureau is suggested. (5) No clear evidence that the crying of one child acts as a stimulus for crying on the part of other children was obtained.—F. L. Goodenough (Minnesota).

2778. Axline, V. M., & Rogers, C. R. A teacher-therapist deals with a handicapped child. *J. abnorm. soc. Psychol.*, 1945, 40, 119-142.—The detailed case history reveals how a skillful teacher-therapist treated a maladjusted 6-year-old boy whose problems included a throat constriction that prevented eating; infantile and antisocial behavior; rejection by his mother and first foster-mother; and several severe illnesses. Nondirective therapy was adhered to, with apparent acceptance of the child just as he was. Signs of transference appeared because of the obvious interest of the teacher, but no dependence remained after therapy was discontinued. The therapist helped the boy to recognize his underlying feelings and conflicting desires by interpreting his statements and actions. Projective play situations were quite revealing. The neurotic tendencies were overcome when the boy accepted his conflicting desires and learned that adult reactions generally brought more satisfaction.—C. M. Harsh (Nebraska).

2779. Bernard, V. W. First sight of the child by prospective parents as a crucial phase in adoption. *Amer. J. Orthopsychiat.*, 1945, 15, 230-237.—"When adoptive parents first meet the child offered by an agency, they face more fully the actuality of parenthood. This sometimes arouses latent con-

licts, with marked anxiety and rejection of the baby, in contrast to previous manifest attitudes. Help based on psychodynamic understanding is needed as the couple and the agency reevaluate the adoption."—R. E. Perl (New York City).

2780. Driscoll, G. P. Mental health of children—whose responsibility? *Teach. Coll. Rec.*, 1945, 46, 501-507.—About one out of every 26 infants later becomes mentally incapacitated. Maladjustment in children is made evident through defensive behavior, such as extreme conformation to or withdrawal from the social group and extremely hard work, through frequent minor physical illnesses and nervousness, and through marked discrepancies between capacity and achievement. Maintenance of mental health requires, besides good physical care, parental love as manifested through encouragement and help, guidance in the acquisition of necessary skills and habits, and understanding and support during crises. Maintenance of mental health is primarily the responsibility of parents, but it is also the responsibility of teachers and the community.—L. B. Plumlee (College Entrance Examination Board).

2781. Dukes, E. The problem child as an evacuee. *Amer. J. Orthopsychiat.*, 1945, 15, 191-200.—The author describes a voluntary clinic in an evacuation center near London and presents case material to show the type of problems handled. She is particularly interested in symptom formation which is due to environmental conditions.—R. E. Perl (New York City).

2782. Frank, L. K. The newborn as a young mammal with organic capacities, needs and feelings. *Psychosom. Med.*, 1945, 7, 169-173.—Argument is offered for the treatment of the newborn in accordance with an acceptance of man's mammalian ancestry and a progressive understanding of his organic functioning needs. As the newborn lacks a capacity for compensatory adjustments and physiological reserves, it is important that early habits of eating and elimination be surrounded with the warmth of a mother's affection as associated with pleasurable sensations. Prolonged deprivation and frustration of mammalian needs may provoke anger or fear, with continuing effects upon personality development.—P. S. de Q. Cabot (United Drug, Inc.).

2783. Geleerd, E. R. Observations on temper tantrums in children. *Amer. J. Orthopsychiat.*, 1945, 15, 238-246.—A firm, consistent though kindly attitude in the handling of temper tantrums is not successful with those cases in which the child's emotional development is fixed at a very infantile level. Such cases show paranoid ideas, and the tantrums are characterized by a break with reality. Total therapy is directed at helping these children develop beyond the stage of complete dependence on a mother figure by supplying them with this love at all times. Loving words and physical contact, as given to a very young child, are used. To determine the correct method of handling temper tantrums in an individual case, one must first ascertain the level of emotional development attained as evidenced by the degree of dependency and the hold on reality.—R. E. Perl (New York City).

2784. Goldfarb, W. Psychological privation in infancy and subsequent adjustment. *Amer. J. Orthopsychiat.*, 1945, 15, 247-255.—Following earlier experimental studies comparing institution and foster-home children (see 17: 3268; 18: 2307, 2637, 3915), the author has made intensive investigations of the life histories of 15 adolescent institution children. These life histories tend to confirm the previous conclusion that infant deprivation results in a basic defect of total personality manifest especially as a defect in concept formation and as an attitude of passivity and emotional apathy.—R. E. Perl (New York City).
2785. Harms, E. Childhood schizophrenia and childhood hysteria. *Psychiat. Quart.*, 1945, 19, 242-257.—The general viewpoints regarding these illnesses are discussed. The author prefers to think of them in psychoanalytic terms. Thus, in schizophrenia there is "a weakening and a continuous dissolving and finally a bursting of the ego structure and the ego function"; in hysteria there are "spasms" of "contraction or laming" of ego function, which, unlike the case in schizophrenia, is normal during remissions. Childhood schizoid and hysteroid behavior patterns are described and interpreted in terms of ego function, which is weak or absent in schizophrenia and overdeveloped and untamed in hysteria, conflicting with reality. The most violent attacks of juvenile hysteria occur during and after adolescence, and are more impulsive and general in nature than in older people because "the ego is more elastic and vital." A case of presumable hysteria, diagnosed as schizophrenia, is described and discussed in terms of ego strength. Therapy in schizophrenia should be directed at ego reconstruction; hysteria therapy should be consciously directed toward correcting the ego functioning.—E. B. Brody (Yale).
2786. Hay, M. Play therapy in wartime: a case of truanting. *Amer. J. Orthopsychiat.*, 1945, 15, 201-212.—This is a detailed discussion of a case of persistent truanting, wandering, and other symptoms in a boy of 8½, evacuated from a London suburb to a Reception Area, where he attended the Government Evacuation Scheme Child Guidance Clinic.—R. E. Perl (New York City).
2787. Levy, D. M. Psychic trauma of operations in children. *Amer. J. Dis. Child.*, 1945, 69, 7-25.—A review of the records of 124 children referred for behavior problems who had undergone an operative procedure revealed that in 25 of the cases there were manifest emotional sequelae. The largest percentage of sequelae occurred in the group under the age of three years. Prolonged night terrors were characteristic responses of the one- and two-year-old children; negativistic responses, of those four years or older. Regressive reactions were rarely present. To prevent the development of postoperative fears the author suggests: postponing the operation (if possible) to at least the age of three years, explaining to the child what is to take place, arranging for the mother to be with the child before and after the operation, and administering preparatory sedative and anesthetic in the bedroom of the hospital. Case history material is presented.—L. Long (College of the City of New York).
2788. Meredith, H. V., & Meredith, E. M. The stature of Toronto children half a century ago and today. *Hum. Biol.*, 1944, 16, 126-131.—Studies of the heights of school children 6-14 years of age reveal a progressive increase in stature from 1892 to 1939. The average increase at year 6 amounts to 2 inches, with a slightly greater shift in the case of females. The largest differences were found in ages 12-13 for females (3½ inches) and 13-14 for males (slightly less than 3½ inches).—F. A. Beach (American Museum of Natural History).
2789. Montagu, M. F. A. The acquisition of sexual knowledge in children. *Amer. J. Orthopsychiat.*, 1945, 15, 290-300.—In the present paper, observations upon the psychosexual development of three children are reported. Most of the psychoanalytic theories concerning the early childhood development of the individual in our culture are based upon insights gained during analysis of the adult. In these three children, at least, psychosexual development and the acquisition of sexual knowledge do not follow along the lines indicated by psychoanalytic theory.—R. E. Perl (New York City).
2790. Montagu, M. F. A. Weaning and so-called Oedipus tendencies. *Psychoanal. Rev.*, 1945, 32, 228-229.—Weaning has been accepted by some analysts as a frustration which lays the ground for Oedipus tendencies. A 3-month-old baby who had been breast fed 5 times daily was suddenly placed on the bottle. There was no disturbance in behavior. Later the child showed that he definitely preferred the bottle to the breast. This report demonstrates that weaning does not necessarily involve frustration.—L. B. Heathers (Smith).
2791. Moorhead, G. E., & Pond, D. Music of young children. III. Musical notation. *Pillsbury Found. Stud.*, 1944, November. Pp. 25.—Training for 5 months in reading and writing musical symbols was given a small group of 5-year-old children in a progressive school where creativity had been stressed. The "experiment proves conclusively that reading and writing music can be taught to young children . . . as the use of written symbols for a natural form of expression, independently of any one instrument or instrumental technique and unconfined by any closed system of conventions."—P. R. Farnsworth (Stanford).
2792. Morse, W. C. Youth centers. *Probation*, 1945, 23, 97-100; 114-120.—The author reports the results of a study of approximately 100 youth centers in the state of Michigan. The various motivations which lead to the establishment of such a center, adult attitudes, the needs and satisfactions of youth, relation to juvenile delinquency, and relation to other community agencies are discussed.—G. S. Speer (Central YMCA College).
2793. Mueller, D. D. Paternal domination: its influence on child guidance results. *Smith Coll. Stud. soc. Work*, 1945, 15, 184-215.—Case records of 25 dominating fathers and 26 children (22 boys and 4 girls) were examined. Fourteen boys were oldest children and 4 were only children. Fourteen cases were originally presented because of school problems. Motivation for domination was either compensatory gain (neurotic), consolation for un-

fulfilled ideals, cultural pattern of authority, or a combination of the first and last. Fifteen of the children were passive, submissive, and dependent; 6 were rebellious and resentful; and 5 were passively resistant. Treatment was most successful for children only if fathers changed also, but favorable factors were improvement in the mother-child relationship, the child's being in adolescence, or the child's being able to establish a good relationship with the psychiatrist. Fathers motivated by cultural pattern were most successful in changing their attitudes. Results with the neurotically motivated group were negligible.—*M. R. Jones* (U. S. Naval Reserve).

2794. Papanek, E. Treatment by group work. *Amer. J. Orthopsychiat.*, 1945, 15, 223-229.—Group work with problem children from one of Vienna's day nurseries for children of school age is described. One case, that of an 11-year-old boy who had been in the Children's Court 7 times, is followed in some detail.—*R. E. Perl* (New York City).

2795. Patterson, R. M., & Leightner, M. A comparative study of spontaneous paintings of normal and mentally deficient children of the same mental age. *Amer. J. ment. Def.*, 1944, 48, 345-353.—Spontaneous paintings of children in the kindergarten, first, and second grades of a public school were compared with those of institutionalized mentally deficient children matched for mental age by the Pintner-Cunningham Primary Mental Examination and the Goodenough Drawing Test. The likenesses found were more numerous than the differences. Only two differences stood up throughout the four sets of comparisons (pairs of 25 children and pairs of 12 boys on the two tests used). The mentally deficient children made a larger percentage of pattern paintings, while the normal group had a larger percentage of paintings in which filled-contour technique was used.—*S. Whiteside* (Cincinnati Public Schools).

2796. Reynolds, E. L., & Sontag, L. W. The Fels Composite Sheet. II. Variations in growth patterns in health and disease. *J. Pediat.*, 1945, 26, 336-352.—Through the presentation of charts for a number of individual cases in which growth in height and weight is plotted against incidence of illness, glandular conditions, family background, seasonal changes and so on, the possibility of using the method for the study of many scientific problems is indicated.—*F. L. Goodenough* (Minnesota).

2797. Rhoads, T. F., Rapoport, M., Kennedy, R., & Stokes, J. Studies on the growth and development of male children receiving evaporated milk. II. Physical growth, dentition and intelligence of white and Negro children through the first four years as influenced by vitamin supplements. *J. Pediat.*, 1945, 26, 415-454.—A total of 233 male children, of whom 42% were Negro and all were from low income groups, were given supplementary feedings (in addition to the home diet) of evaporated milk. The children were divided into four groups. Each group received vitamin supplementation of differing amount and kind. Anthropometric measurements were made at regular intervals, and at the age of 3 years all children were given the revised Stanford-Binet test. No relationship to vitamin intake was found either for the physical or the mental

measurement, but racial differences both in body build and intelligence quotients were present. The mean IQ of the white children was 103.9; of the Negroes, 96.3.—*F. L. Goodenough* (Minnesota).

2798. Schachtel, A. H., & Levi, M. B. Character structure of day nursery children in wartime as seen through the Rorschach. *Amer. J. Orthopsychiat.*, 1945, 15, 213-222.—In order to study the effect of socioeconomic factors on character structures of young children, especially during war, Rorschach analyses and supplementary observations were made on a group of 50 children in a wartime day nursery. These were compared with a group of children of prosperous, middle-class parents, children who attended a private nursery school. Analyses were made in terms of love, not-loved, and pseudo-loved children. It was found that many not-loved children develop in a sturdy and constructive way, not being loved often proving to be more constructive for the development of the child than the experience of pseudo-love.—*R. E. Perl* (New York City).

2799. Sontag, L. W., & Reynolds, E. L. The Fels Composite Sheet. I. A practical method for analyzing growth progress. *J. Pediat.*, 1945, 26, 327-335.—A method is described for plotting children's growth progress in terms of deviations of each measure from the group mean. The advantages of this method for the study of individual children are noted.—*F. L. Goodenough* (Minnesota).

2800. Sterba, E. An important psychological factor in breast feeding. *Psychosom. Med.*, 1945, 7, 177.—Abstract.

2801. Székely, B. El niño neurótico. (The neurotic child.) Buenos Aires: 1943.—[Abstracted review; original not seen.] The thesis is consistently upheld that "the neurotic is invariably asocial." Biological and psychological factors participating in the development of neuroticism constitute a "pseudo-heredity"; if the child is neurotic, there has been some influence from the neuroticism of its parents. Therapeutic methods are considered.—*H. D. Spoerl* (Jeffersonville, Vt.).

2802. Zapf, R. M. Relationship between belief in superstitions and other factors. *J. educ. Res.*, 1945, 38, 561-579.—A test of 100 items was constructed by the author to measure belief in superstition and administered to 1135 ninth-grade pupils. Those taking the test were first asked to indicate which items they had never heard before and then to indicate which items they believed. Girls were more superstitious than boys. Children whose fathers had attended college were less superstitious than those whose fathers had not gone to college, but attendance of mothers at college was not significantly related to superstition scores of children. The United States Negro and the Romance groups were more superstitious than other groups. Belief in superstition correlated $-.20$ with intelligence, $-.11$ with emotional and social adjustment, and $-.22$ with socioeconomic status. The per cent of items never heard before but believed was used as an index of suggestibility. The correlation between this index and superstition scores was $.50$.—*M. Murphy* (Pennsylvania).

[See also abstracts 2543, 2565, 2641, 2671, 2752, 2773.]

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